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WORLD PHILOSOPHY

A SYNTHETIC STUDY

BOOK ONE—EPISTEMOLOGY

SWAMI SATYANANDA

SREE SREE RAMAKRISHNA SEVAYATAN
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To

THE MOTHER

SREE RAMAKRISHNA

SWAMI ABHEDANANDA

FOREWORD

It is with enormous diffidence and hesitancy that I have persuaded myself to set my hand to the uphill task of writing an introduction to the work, composed by His Holiness Sri Sri 1008 Swami Satyananda, which is far beyond my competence. The book is entitled 'World Philosophy—a synthetic study' with perfect justice. Works on philosophy are coming out every year in Europe, America and India in rapid succession, and it is extremely difficult even for a professional philosopher to keep abreast of the out-turn. It is more or less an anomaly that philosophers of Europe and America are not acquainted with the thoughts of Indian philosophers to the extent one may expect. Their knowledge of Indian philosophy is derived more or less from hearsay. It is however a fact that the trends of philosophical speculation in ancient and mediaeval India before Muhammedan conquest were as free, diverse and spontaneous as in ancient Greece and modern Europe and America. The belief is more or less widespread in the West that India only produced idealistic and pantheistic systems of thought noted for their religious ardour and contempt for the world. But this is only as onesided a picture of India as it would be of Europe in the present day. India also produced realistic systems ranging from materialism to pragmatism. A cursory acquaintance with the doctrines and conclusions of the different schools of Indian thought as unfolded in this work will not fail to strike a student of philosophy as evidence of freedom of thought and expression that prevailed in India.

Religion in India did not produce intolerance even of what could be legitimately regarded as rank heresies. This intellectual freedom of past India compares very favourably with what now obtains in the West. The result has been a bewildering variety of tenets and theories advocated by thinkers of outstanding ability. Atheism, nihilism, subjectivism, solipsism, crude materialism, dualism, pluralism have all been advocated by Indian thinkers of different schools with the same amount of liberty of expression as now in the Western world. India's thought is a curious mosaic of widely varying and conflicting patterns. That this is also the position in Europe has been portrayed in the present work. The ancient systems of thought of India have been brought under survey vis-a-vis the ancient thinkers of Greece and the mediaeval and modern philosophers down to the recentest writers. The different views of the philosophers, the fundamental results achieved by them and their salient characteristics have been set forth in the work without criticism or comment. No important thinkers have been left out. The epistemological and metaphysical theories sponsored by different philosophers have been set down side by side without any attempt to champion any trend of thought at the cost of others. The author's attitude has been thoroughly dispassionate and impartial. He does not let us know his own reactions. Any philosophical theory he would propound would only be an addition to the list which is formidable in its bulk and variety. In this work a student of philosophy will find the solid results of encyclopaedic learning and study which will cost years of exacting labour. An ambitious student may be goaded to go to the sources. I, for myself, feel no hesitation to confess my ignorance of many of the modern philosophers whose views have been brought under review in this work. This is one of the reasons for my diffidence to undertake the present task. But the mandate has come from high quarters and it is not within my power to evade or avoid the responsibility irrespective of my equipment. The perusal of the contents and topics dealt with has produced an effect on me, which is as edifying as it is revealing. I have learnt much and realised that my ignorance far exceeds my knowledge. The work has confirmed the truth of the assertion of Saṁkarācārya that each man has his own thought and approach and results of unfettered freedom of thought must be bewilderingly diverse and divergent.[1] It may not be impossible to bring these different approaches and results together and place them in a wider perspective. The author has given broad hints about the feasibility of such a consummation. Summing up the theories of truth the author observes, 'These theories—the theory of the empiricists, of the experientialists and that of the rationalists or the intuitionists and the dialectic theory taken together explain correctly the mental phenomena'. (P. 151)

Each philosopher approaches reality from his own standpoint and finds out aspects which must not necessarily be perverted in spite of their mutual conflict and clash. Perhaps no philosophy is entirely wrong and the opposition of views may be due to the diverse aspects and facets of reality and also the subjective endowment of each thinker which determines his approach. The divergence of results need not produce a feeling of despair or cynicism. On the other hand they should curb dogmatism and chasten the ardent enquirer. The solution of world problems which are ever green will not be a facile task. The different findings are perhaps symptomatic of the infinite aspects of truth which may find a synthesis in future. For this it is necessary that one should not turn a deaf ear to the expostulation of philosophers which may give a rude shock to one's beliefs and convictions. Reality is capacious enough to accommodate all these varieties of expression. The days of mediaeval jealousy, intolerance and censorship of thoughts and expressions must be bid goodbye. Both a cultured lay man and a curious student of philosophy will find in this work an exposition of the philosophical thoughts of centuries sponsored by a large number of thinkers in a nutshell, and the study of it will be highly rewarding. I may not be entirely erring to judge by my own standard and authority of experience that a serious student with sympathy and open-minded charity will derive a substantial benefit from the study of this work which will broaden his outlook and chasten his attitude.

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[1] Brahmasutra bhāsya—Chapter II, pāda I—sutra I p. 435, (Nirnayaṣāgar Edition.)

25.6.59 SATKARI MOOKERJEE, M.A., PH.D.
Director, Nava Nalanda Mahavihara.

INTRODUCTION

Philosophy, according to the Indian tradition aims at realising truth, and to realise it is to be one with it which is Brahman, "Brahmavid, Brahma eva bhavati". Now it is love alone, that brings oneness. Again Philosophy according to the European tradition is love of Knowledge "Sophia Philos". Thus both Eastern and Western Philosophies come to mean the same thing—it is rooted in love for something Supreme.

The river of thought is flowing through the ages, washing the shores of different regions. It runs towards the blue ocean of wisdom. But it has the shimmering beckon of the infinite blue, the transcendental reality for all ages and for all climes.

The river of thought is concerned with the source, with the course and with the goal ahead. The source of knowledge is the mind, the course is the world and the end is the infinite wisdom of the Supreme Being in whatever way we may call Him.

Philosophy begins with man's self-consciousness. We become self-conscious, according to the law of relativity of consciousness, when we are faced with the not-self. Indians in the Vedic age were roused to a theistic belief by the wondrous nature around them. The Greeks, also, were roused from their slumber, by the creation around them, when they asked for an explanation of the world.

WORLD PHILOSOPHY

Philosophy is the science and the art of living, or as the stoics say, the art of living wisely, and it is the art of doing away with all the miseries as found by the Indian philosophers. Science gives us mastery over nature while philosophy gives us wisdom for a better life for ourselves as also the world around us.

The world is a unity in diversity. The world philosophy gives us divergent currents of thought, as also the unity underlying them all. This underlying theme is the music of life, it is the ruling principle, the keynote that runs through every soul. We should know this in order to live in harmony with the cosmic process. As there is a philosophy of the Greeks, a philosophy of the Indians and so on, so there is a philosophy for the whole world; and the master principle behind it is truth, Satyam. We may call it by any name, whether GOD in heaven, BRAHMAN of the Vedas, ĀHURMAZADA of the Parsees, ĀLLAH of ISLAM, TAO of the Chinese or only a VOID of NIRVAN but we have to be united with it through Love that does not die, the Love that is everlasting.

FROM THE PUBLISHER

This book has a genesis, four years older than the History of Philosophy, Eastern and Western, by Radhakrishnan and others, published by the Government of India in 1952. A few articles appearing in the pages of a monthly in Bengali, from the pen of Brahmabadini, a young renunciate, of the Ramakrishna Order, and some more writing published as two parts of a book named 'Samanvayee Darsan' i.e. Harmonised Philosophy, in 1949 and 1950, form the nucleus of this treatise.

Dr. Satish Chandra Chatterjee, of the Calcutta University and the late Dr. Mahendra Nath Sarkar spoke highly of the book and wanted an elaborated edition of it. As a systematic world-philosophy was a greater need of the day, we were trying to publish an enlarged edition in English and it took nearly six years in our race with time. Our book is written on a synthetic view, taking up broad points of philosophical interest. It is an expository and non-critical account only.

We have given in these pages views of some of the scholars of the West and East, renowned in the world of Philosophy. We have made no mention of Arabian Philosophy in particular. The reason is twofold. Firstly, the Arabian philosophy developed as an offshoot or corollary of the religion of Suphism, and in many places it duplicated main issues raised by the Western thinkers of the mediæval and modern periods. Avicenna and Averroes are mainly commentators of Aristotle. (Russell His. W. Phil. P 447).

Secondly, the bulk of the volume has become enormously big. In consideration of these two we propose to postpone it for the present, and defer it to some future edition if it is pressed for.

We are indebted to various authors down the ages and we take this opportunity to acknowledge our deep regard for all of them. Knower of truth becomes identified with it. "Brahmavid Brahma eva bhabati". We have given the intuitive knowledge about some topics from the sayings of SREE RAMAKRISHNA, the Seer of DAKSHINESWAR. Philosophy, at least for some, is intuitive knowledge. SREE RAMAKRISHNA is a world-accepted Seer of that type.

We hope this type of synthetic account of world philosophy will be of some help to the seekers of unity and synthesis.

In fine, we must thank Dr. Satkari Mookherjee, M.A., Ph. D. Quondam Asutosh Professor of Sanskrit, Calcutta University, for going through the entire mass. An introduction of Dr. Mookherjee to the learned world is not at all necessary. He, inspite of his multifarious preoccupations and shattered health has found time to go through the whole of it and offer valuable suggestions for the improvement of the work. We thank him again in the name of the Lord and we add here that his prefixing of the number 1008 to the name of the author in his foreword is a devotional conformance to a sacred tradition of India.

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WORLD PHILOSOPHY

BOOK I

EPISTEMOLOGY

Of the three broad divisions in philosophy, philosophy of nature, philosophy of mind and philosophy of reality or God, the main theme running through them all is epistemology or the problem of knowledge. We give below historically the theories of knowledge through the ages.

Vedic Period: (1.500 *B.C.*—600 *B.C.*):

The dawn of world philosophy is with the Vedas and the Upaniṣads. In India, philosophy begins with Brahman, *Saguṇa Brahma* of the Upaniṣads; the first cosmic entity is the primal Seer of truth, the primeval philosopher. His love of knowledge is His self-love; His is the prime philosophy. He practised austerity by a cosmic knowledge *Sa Topotapyata. Tapasā Ciyate Brahman......Yasya Jñānamayam Tapaḥ.*[1] It seems from these mystic sayings that the world takes its rise from a cosmic thought-process. The world is the concretisation of a cosmic idea. The world according to the seers of the Upaniṣads is got through some amount of austerity i.e. some amount of labour, and Brahman did this in the shape of creative thinking.

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[1] Mund 1/1/8-9.

There are two kinds of knowledge:—*Parā* and *Aparā*. *Dve Vidye Veditavye...Parā caivāparā*[1]. There are two departments of knowledge, these are known as *Parā* and *Aparā*. The *Aparā* or Phenomenal knowledge contains the *Ṛgveda*, *Yajurveda*, *Sāmaveda*, *Atharvaveda*, *Śikṣā*, *Kalpa*, *Vyākaraṇa*, *Nirukta*, *Chandas*, *Jotiṣa*. *Parāvidyā* or real knowledge is that branch of knowledge by which we reach the *Akṣara* or the immutable.[2]

The Epic Period: (600 B.C.-200 B.C.):

In the Upaniṣads, there are several ways of acquiring real knowledge. These are *Manana*, *Śraddhā*, *Niṣṭhā and Ekāgratā*. These are described in such a way that they appear to be dependent on one another. Real knowledge is to be specially sought. *Satyaṃtvev......Vijijñāsitavyamiti.*[3] This real knowledge depends on *manana* or thought. *Yadā Vai Manuteaba......vijānāti.*[4] This *Manana* again depends on *Śraddhā* (belief in the existence of the object of knowledge) *Yadā Vai Śraddhadhāti.*[1] *Śraddhā* again takes its stand on *Niṣṭhā* or serving the preceptor and such other acts of the knower, *Yadā Vai Nistiṣṭhati.*[2] Finally this *Niṣṭhā* depends on *Ekāgratā* or concentration. *Yadā Vai Karotyathā.*[3] *Ekāgratā* again depends on *Sukha* or pleasure.[4] A man proceeds to do something, only when he is convinced that it yields pleasure and this pleasure is identical with Brahman. *Yo Vai Bhūmā Tat Sukham, Nālpe Sukham Asti.*[5] Real pleasure or bliss depends not on petty things, but on non-dual *Bhūmā*. This *Bhūmā* is *Brahman*. So we see that Upaniṣadic epistemology leads to the knowledge of *Brahman*. In the *Praśna Upaniṣad* (4/8), the ten *Indriyas*, the five organs of action and the five senses of knowledge, the mind, the intellect, the self, the *Citta* are mentioned. The *Indriyas* work under the *Manas*—the central organ, whose main functions are perception and action. Without mind, the senses are useless. But all these owe and have their existence in *Akṣara.* Our worldly consciousness turns its back on the eternal reality and is lost in the perishing unreality due to impurities in our mind. These are selfish desires and passions. Of course the Upaniṣads want to deal with right knowledge in the main.

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[1] Mund 1/1/4.
[2] Ibid., 1/1/5.
[3] Ch. 7/16/1.
[4] Ibid., 7/18/1.

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[1] Ibid., 7/19/1.
[2] Ibid., 6/20/1.
[3] Ibid., 7/21/1.
[4] Ibid., 7/22/1.
[5] Ibid., 7/23/1.

In later Vedānta we find the views about the organs of the soul which are (1) *Manas* and *Indriyas* (2) the five *Prāṇas* (organs of nutrition etc.) (3) *Sukṣma Śarīram* (the subtle body), *Karma* (that changes from birth to birth). *Manas* and *Indriyas* are the organs of knowledge. The *Jñāna Indriyas* convey the impressions of the senses to the *Manas* or mind which manufacture them into ideas (*saṁkalpa*). The function of seeing and hearing depart with the subtle body. But above all the soul or the self is the knowing subject in all forms of knowledge[1] and *Manas* is sometimes identified with it. The past knowledge is stored in the *Bhūtāśraya* or the ethical self and it migrates with the *Sukṣma Śarīram* after death. According to Vedānta, from the standpoint of absolute truth (*Pāramārthik*) Jīva and Brahma are really identical. But practically speaking Jīva is knowledge and knower both.

[1] Bṛh. Up. 3/8/11.

These physical organs and *Manas* are called eleven Rudras in the Upaniṣads.[1] Again these *Manas* and *Indriyas* have their own deities. Moreover they are called *Devas* or *Asuras* inasmuch as they are inward or outward in their use.[2]

The Seers of Upaniṣads wanted to instruct intuitively. The nature of the students was known first, then the highest knowledge was given step by step. They could, of course, reveal the 'highest' by a mere wish or by a word only. Knowledge to the Upaniṣadic Seer is an intuitive knowing.

The Cārvāka theory of Knowledge.

The philosophy, religion and ethics of the Cārvākas are based on their theory of knowledge. Perception, according to them, is the only source of knowledge. Inference, they say, cannot be a means of knowledge, for inference involves universal relation (*vyāpti*) which cannot be perceived. Time and space is without limit, so we cannot reasonably jump from particulars to universals. Again testimony is not a source of knowledge, it is a case of inference. The sacred books are full of arbitrary and unreasonable statements. Some cultured Cārvākas admit

[1] Bṛh up 3/9/$\frac{3}{4}$.

[2] Chān 1/2/$\frac{1}{6}$

inference as probable knowledge from past relations, and probable knowledge is enough for practical purposes. For them causality is not a source of valid knowledge as mere perception of some cases of concomitance cannot lead to the knowledge of universal causal connection. Such a knowledge involves a wrong inference and hence is objectionable. The universe is an accidental formation. Nature is the principle behind it. For them the world arises out of accidental combination of the physical elements. The elements are earth, water, air and fire. Matter is the ultimate reality and consciousness arises out of matter in a complex combination. They are naturalists or *Svabhāvavādins* and this is naturalism or *Svabhāvavāda*, theory of the origin of the universe.[1]

Jaina Epistemology.

The Jaina theory of knowledge is a bit intricate one. According to them knowledge is of five kinds; these are (1) *Mati* (2) *Śruta* (3) *Avadhi* (4) *Manaḥparyāya* and (5) *Kevala*. There are two ways of gathering knowledge and these are *Pramāṇa* and *Naya*, and of these *Pramāṇas* are of two kinds, *Pratyakṣa* (direct knowledge) and *Parokṣa* (indirect knowledge got by the help of the senses or by inference etc). *Mati* and *Śruta* are acquired indirectly and as such are *Parokṣa* or indirect knowledge, while *Avadhi*, *Manaḥparyāya* and *Kevala* are the forms and varieties of *Pratyakṣa* or direct knowledge. According to some, this *Mati* or cognition through the sense organs is *Pratyakṣa* or direct.

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[1] History of philosophy—Radhakrishnan p. 133, Vol. I.

Thus according to the Jainas, knowledge is of two kinds—*Pratyakṣa* or *Anantara* which is direct and *Parokṣa* or *Sāntara* which is indirect. Again there are two forms of knowledge one is *Pramāṇa* or knowledge of a thing as it is in itself, and the other is *Naya* or knowledge of a thing as it is in its relation.

Now *Matijñāna* is ordinary cognition and is got by sense perception. *Smṛti* or remembrance and *Saṃjñā* or *Pratyabhijñā* or recognition, *Ūha* or *Tarka* or inductive knowledge, *Abhinibodha* or *Anumāna* or deductive knowledge, *Āgama* or verbal testimony are included in *Parokṣa* knowledge.

(1) *Matijñāna* is sometimes divided into three kinds. These are (a) *Upalabdhi* or perception (b) *Bhāvanā* or memory (c) *Upayoga* or understanding. *Matijñāna* is knowledge by means of the sense organs or *indriyas* and mind which is called *anindriya*.

(2) *Srutajñāna* is testimonial knowledge and is got through signs, symbols or words. It is of four kinds (a) *Labdhi* or association (b) *Bhāvanā* or attention (c) *Upayoga* or understanding and (d) *Nyāya* or aspects of the meaning of things. (3) *Avadhi* is direct knowledge of things even from a distance. It is a knowledge through clairvoyance. (4) *Manaḥparyāya* is telepathic knowledge of others' minds. (5) *Kevala* is perfect knowledge of substances and their modifications. It is knowledge of purified souls. It is able to comprehend reality as infinite and all complete.

Of these five, the first three kinds of knowledge which are *Mati*, *Śruta* and *Avadhi* may be wrong, while the last two cannot be wrong. Valid knowledge is true representation of a thing and has pragmatic or practical value. In invalid knowledge a thing is represented in wrong relations and is subject to contradiction.

False knowledge is of three kinds (1) *Saṁśaya* or doubt (2) *Viparyaya* or mistake and (3) *Anadhyavasāya* or error caused by carelessness or indifference.

Darśana or perception and *Jñāna* or intelligence are two aspects of consciousness of Jīva. *Darśana* is perception where details are not perceived, while in *Jñāna* they are perceived. In *Darśana*, *Sāmānya* or generalities of things are perceived and no particulars or *Viśeṣa*. There are several stages in such knowledge viz. (1) *Vyañjanāvagraha*,—where the stimulus acts on the end organs, and a primary connection between the object and the subject is established. (2) *Arthāvagraha*—here the consciousness is stimulated and a sensation is felt. These are marginal sensations so to say. (3) *Īhā*—In this stage details of resemblance and difference are desired. (4) In *Avāya* reintegration of the present and past and the recognition of the object, as this and not that, takes place. (5) *Dhāraṇā* aspect of knowledge takes place when we cognise the qualities of the object and the actual object is known.

In all knowledge, the object and the self are known simultaneously; in every act of knowing, the knower knows himself naturally. In a perfect condition the *Jñāna* and *Darśana* rise together, but in ordinary Jivas, *Darśana* is followed by *Jñāna*. In its perfect stage, knowledge is free from *Saṁśaya* (doubt) *Vimoha* (perversity), and *Vibhrama* (indefiniteness). All knowledge is in us, only the obstructions are to be removed. These obstructions are of two kinds. (1) *Darśanāvaraṇīya Karma*, actions that obstruct the *Darśana* (2) *Jñānāvaraṇīya Karma* or those that obstruct the different *Jñānas*. According to *Jainas*, *jñāna* and

Jñānin are inseparable in self-consciousness and both *Ātman* and *Anātman* are revealed in knowledge.

Now we come to the *Naya* ways of knowing. It is knowing of things in its relations as against *Pramāṇa* or knowledge of a thing in itself. It is making statement of a thing from a particular standpoint. There are various standpoints, but according to one view, we have seven standpoints or *Naya* and of these four refer to *Artha* or meaning and three to words.

The *Arthanayas* are (1) *Naigamanaya*, which tells us of the general purpose and end of our action. (2) *Saṁgrahanaya* lays stress on the common features. (3) *Vyavahāranaya* is the popular way of seeing a thing. (4) *Ṛjusūtranaya* is the view of a thing as it is at a particular moment. (5) In *Śabdanaya* an object is expressed by a name and its task is to present to the mind a quality or relation or an action. Each name has a particular meaning and different words may refer to the same thing. (6) *Samābhirūḍhanaya* distinguishes forms according to their roots or origins. (7) *Evambhūtanaya*, of the various meanings according to the root of the term, only one is meant. One *Naya* or point of view should not be mistaken for the whole point of view, otherwise we have *Nayābhāsa* or a fallacy.

Again there are two other *Nayas*, *Dravyārthika* or from the point of view of the substance; it gives the permanent nature of things, and *Paryāyārthika*, from the point of view of conditions; it gives the perishable nature.

This theory of *Naya* or ways of affirming and denying something about a subject is *Syādvāda* and it holds all knowledge to be probable or relative. This way of thinking has led the Jaina Philosophy to question truths like *Satkāryavād* of the Vedānta and of the Sāṁkhya and *Asatkāryavād* of the Nyāya and of the Vaiśeṣika.

The seven ways are:

(1) *Syād asti*—A positive statement. A thing may exist as it is in a time and place and of a nature. A book exists as it is in a room and in such and such hour having such and such nature (material, place, time and nature).

(2) *Syād nāsti*—A thing may not exist as another thing in another time and place having another nature. The book does not exist as a pot in such and such hour etc. Thus it is a negative statement.

(3) *Syād asti nāsti*—This view combines (1) and (2). In one sense the book may exist and in

another sense it may not in the time-space and having these qualities.

(4) *Syād avaktavya*—An indeterminate statement. A thing having two contradictory natures becomes unpredictable if these statements are made at once.

(5) *Syād asti avaktavya*—A thing may exist but is unpredictable. Positive but indeterminate statement.

(6) *Syād nāsti avaktavya*—Here we describe that which the thing is not as well as its unpredictable nature. Negative but indeterminate statement.

(7) *Syād asti nāsti avaktavya*—By this we say what the thing is and as well as what it is not, together with its unpredictability. This gives a positive, and a negative and indeterminate statement all at once.

Buddhist Epistemology

Next comes the Buddhistic Ethical Idealism. Bodhisattva, centering round whom the entire philosophy of Buddhism takes its rise, was always reticent about the ulterior reality and for this the Buddhistic philosophy came to be known as Godless and atheistic. The sermons of Buddha are simple and serene and on the basis of these the massive and subtle philosophy of Buddhism had its origin.

In *Pratitya-Samutpāda* or the doctrine of dependent origin, Buddha gives the origin of consciousness (*Vijñāna*) from tendencies of past lives (*Saṁskāras*) and these again come from past ignorance (*Avidyā*). From consciousness the mind, and from these the (*Sparśa*) Contact[1]. These three are the organs of knowledge.

Now, as to the sources of knowledge, the early Buddhists recognise validity of perception and inference.

Inference is based upon generalisation, i. e. knowledge of universal concomitance between the *Prabans* (*Hetu*) and *Prabandum* (*Sādhya*). The basis of inductive generalisation is twofold, viz. causality and essential identity (*Svabhāv a* or *tadātmya*). There are five stages in the discovery of causal relation, *Pañcakārani*—(1) No cause and no effect (2) The presence of cause (3) The presence of effect (4) No cause (5) No effect. This leads us to a causal relation. They also admit essential identity of genus-species as a ground for generalisation. Buddha accepts a boundary line between emperical and transcendental knowledge. He does not want to look into or encourage speculation on the ulterior reality.

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[1] Majjhima Nikāya, p. 40.

The later Buddhism is divided into two major schools of thought (1.) the *Hīnayāna* and (2) the *Mahāyāna.*

The Hīnayāna and the Mahāyāna Schools:

Hīnayāna Buddhism takes its rise from the canonical works while *Mahāyāna* is a later school of thought. *Hīnayāna* school takes the phenomenal world as fleeting and transitory. These momentary units are called *Dharmas*. These phenomenalists have explained abstract universals as primarily negative ideas (*anyāpoha*). They are busy about their own salvation. To this school belong the *Vaibhāṣikas* and the *Śautrāntikas.*

The *Mahāyānists* of the *Vijñānavāda* School are on the other hand the upholders of nihilism with regard to the phenomenal order. They accept a metaphysical substratum, a reality called *Bhūtatathatā* that harmonises and transcends all contradictions. The world, according to them has no independent reality and the attributes and activities are deceptive appearances. The latter two are changeful. This school however, has a broader outlook inasmuch as, it wants the salvation of the people at large. The experiential truth is called *Saṃvṛti* and the absolute substratum is called *Bhūtatathatā*. The *Yogācāra* and the *Mādhyamikas* belong to this school of thought.

The Vaibhāṣika School:

This speculative school belongs to the *Hīnayāna* Buddhism. The *Vaibhāṣikas* are pluralistic realists or *Sarvāstivādins*. According to them knowledge is acquired by perception or *Grahaṇa* i.e. direct contact with the objects. Inference depends on perception. There is a duality between mind and nature. The objects have but a temporary existence. Even the self or *Pudgala* is fiction for a continuous mental phase. The objects are external or *Vāhya* and internal or *Ābhyantara*. The chief exponents of this school are Dharmatrātā, Ghosaka, Vasumitra and Buddhadeva; Vasubandhu's *Abhidharmakoṣa* and the commentary *Sphuṭārtha* are the only source books available.

The world is atomic. The *Paramāṇus* or atoms are the smallest particles which are invisible, indivisible and intangible. These *Paramāṇus* contain fourfold qualities or *Rūpa Skandha* viz. colour, smell, taste and touch.

According to the *Sautrāntika* realist, perceptual intuition (*grahaṇa*) gives direct and correct insight into the real. This intuition is made definite and determinate by concepts, which are purely subjective. Judgments are thus not true and faithful measure of reality. They become vicariously true when they are inspired and engendered by intuition. Perceptual judgment even when veridical, is not true by itself, but leads to the objective reality, when it directly follows upon intuition. It is not regarded as a source of valid knowledge, because it only clarifies the content of intuition and does not yield new knowledge. Inference, though it deals with concepts, is believed to be valid knowledge, because the knowledge of the *Prabandum* (Predicate) was not known in the subject (*Pakṣa*) before and leads to the discovery of the real fact, being based upon and derived from factual relation of real facts.

The sense objects are form, taste, smell, touch and sound and corresponding to these five we have five *Indriyas* (sense organs). These five *Indriyas* after taking the sense objects, excite the *Citta* or mind and *Vijñāna* or consciousness. There is no soul apart from *Vijñāna* or *Citta*, which means the same thing.

According to this school the external objects are true as they are perceived externally and internally.

There are two kinds of knowledge. It is called *Grahaṇa* or perception which is indeterminate but without any mental imagery and it is *Adhyavasāya* or conception which is more clear but coloured by mental image. That which accepts the objects of knowledge is *Upalabdhṛ*. It is variously called *Vijñāna*, *Caitanya* and mind. The mind functions as memory. The objects of knowledge stimulate the sense organs and the intuition gives rise to *Adhyavasāya* (judgment) aided by memory and thus becomes knowledge in the *Vijñāna* stuff.

The Sautrāntika School:

Sautrāntikas with Dharmakīrti and Dharmottara as chief exponents, are the representative schools of thought of the *Hīnayāna* group. According to this school, the phenomenal world is accepted but there can be no direct perception of that phenomenal world. It is inferred from their mental images. We infer objective existence just as we infer a man's good dinner from his fatty look. The outer objects are momentary. The forms of objects enter into our consciousness swiftly and thus seem to be simultaneous and permanent. Perceptual cognition is brought into existence by four conditions, viz.—(1) Datum (*Ālambana*), (2) Antecedent homogeneity of suggestion (*Samānantara*), (3) Medium (*Sahakāri*), (4) Dominant condition (*Adhipati*). The form of the blue cognition arises from blue datum. The form is resuscitated by suggestion; cognitive consciousness is determined by the antecedent and light is a medium, while eye is the dominant condition.[1] Perception is determined by the object alone and is *Nirvikalpa* or indeterminate, while conception formed by mental impositions (*Kalpanā*) is called *Savikalpa* or determinate. They accept atomism, but atoms are also momentary. Time and space are ideal constructs with *Ākāśa* as the ultimate atom.

The Yogācāra School:

This school takes a subjective view of the world. The founders of this school are Maitreyanātha, Asanga and Vasubandhu. In all probability this school begins with *Laṁkāvatāra Sūtra*. They are idealists. This school is also called *Vijñānavāda*. Matter for them, is a mental idea only and things or *dharmas* are combinations of sensations. They are non-material. Everything is founded on *Vijñāna* or consciousness. This school has used three terms for three states of consciousness (1)

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[1] Sarvadarṣana Sangraha, p. 30.

Ālayavijñāna. This *Ālayavijñāna* is the store-house of all our past impressions. The germs that are here are the cause of all the objects that seem scattered outside us and in our ego which cognises them. Vasubandhu tells in the *Triṁśikā*, *Ālaya-vijñāna* is the first transformation of pure consciousness. It stores-up the seeds of all phenomena and creates them. The seeds are the impressions left by previous cognitions. This *Ālayavijñāna* ceases to exist and functions on the dawn of enlightenment and pure consciousness which is the ultimate reality (*tathatā*) reigns supreme, free from all defilements; it is the stream of consciousness in the individual containing all the *Saṁskāras* or past impressions. (2) *Monovijñāna*:—the categorizing or synthesizing activity of mind. It stands for the ego. (3) *Pravṛtti Vijñāna* gives the five external sense-data and the datum of the inner sense.

Tathatā is the pure being which transcends all opposites. It becomes *Ālāyavijñāna* in its dynamic state. All *dharma*, good and bad, pleasure and pain, are stored in the *Ālaya*. *Tathatā* is the first and ultimate principle. *Ālaya* with *Avidyā* and *Vāsanā* come next. Next come the empirical subject and object. Vasubandhu takes the *Ālaya-vijñāna* as being based on a derivative of *Tathatā* which in the language of Vedānta may be characterised as *Sat*, *Cit* and *Ānanda*.

According to this school cognition of external object comes in two ways (1) By one *Vṛtti* we create by imagination, the objects. This is *Khyāti Vijñāna.* (2) By another *Vṛtti*, we establish a relation between them. This is *Vikalpa Vijñāna*. This *Kalpanā* is of two kinds. By one kind of *Kalpanā* we perceive the objects, and by another we think of them as seen before. This is memory. In this way in every man we find a stream of perception and memory. This is called *Santāna*. One man's *Santāna* is capable of influencing another. That very thing which is producing a *Jñāna-dhārā* in us, is also producing the phenomenal object. This is both the cause and effect. These two take their origin from *Ālayavijñāna*. According to Aśvaghoṣa there is *Bhūta-Tathatā* which means that every thing in itself is unmanifested, it is what it is and it cannot be positively explained. It is unknowable. This unknowable stuff is negative and appears to us as multiform phenomena, when we give them various names and forms. This is called *Ālayavijñāna*, the home of all vibrations, all appearances and all illusions. All the *Dharmas* (qualities and substances) are but imaginary constructions of ignorant minds "*Sarvam Budhi-*

mayam". "Mind by whose movement these creations take place as subject and object, is thus without origination, existence and extinction and is called *Ālayavijñāna*. The phenomenal world is neither identical with nor different from this *Ālayavijñāna*". But in its real aspect it can never be said to exist or not to exist. "Such a state which is complete in itself and has no name and no substance, has been described in the *Laṁkāvatāra Sūtra* as thatness (*Tathatā*)",[1] This is also called *Śunyatā* or voidness. There are four-fold knowledge of things: (1) All things are created by imagination (2) Things have no essence. (3) The distinctive sense in which external objects are said to be existent or non-existent is due to desire. (4) Right knowledge of the nature of things.[2]

The Mādhyamika School

This absolute school takes its rise from the Buddha's ethical and metaphysical teaching about the middle way. In the *Saṃyukta Nikāya* we find Bhagavān Buddha Saying, "This world, Oh Kāccana is viewed on a duality between two extremes:—it is and it is not. Everything is—this is one extreme.

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[1] Das Gupta, Vol. 1, pp. 145, 146, 147.

[2] Ibid. p. 150.

Oh, Kāccana! everything is not, is another extreme. The truth is in the middle.'' This school thus comes to support the mean between the extreme affirmation and the extreme negation. The world according to this school, is only an appearance (*Pratīti*). This world of appearance has no real substratum. Nāgārjuna, one of the exponents of this system, says that when we have knowledge got through the eyes, we do not get any connection between the inert (*jaḍā*) eyes and knowledge. This system is called *Śunyavada* and this voidness of the world is deduced from the theory of *Pratitya Samutpāda* (the dependent origination) which shows that things have no independent existence and the world is only an illusion.

The ultimate principle may be considered either as a real or as an unreal or as both real and unreal or as neither real nor unreal. If a thing really exists, no maker is needed. If it is not existing, no cause is necessary; the other two possibilities are self contradictory. So we come according to the *Mādhyamikas*, to a nihilistic view, a final extinction which is void.[1]

To sum up these four schools, we have according to Mādhavācārya, *Bhāvanā catuṣṭaya*—four ways of thinking of the world (1) Every thing is momentary (*Sarvam Kṣaṇikam*). Every thing is but a ripple in a wave of world appearance. But every ripple depends on the previous ripple. Every percept or *Pratīti* takes its origin from a previous one and it dies at the very moment. This is called *Pratītya Samutpāda-vāda* (2) Every thing is painful—(*Sarvam Duḥkham* (3) Every thing is unique and particular (*Sarvam Svālakṣaṇam*) (4) Every thing is an unsubstantial appearance and devoid of essence (*Sarvam Śunyam*).

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[1] Sarvadarśana Saṅgraha Tr. Cowell, pp. 22-23.

The Sūtra Period (A.D. 200)

The Sāṁkhya School:

According to Sāṁkhya, cognition is the function of the reflected *Ātman* (*Puruṣa*). The sense organs are only instruments to it.[1] When the objects of cognition (through the sense, the mind, the self-sense and intellect) come near *Puruṣa*, *Pramā* or real knowledge is the result.

Due to its cojunction with *Puruṣa*, the unconscious *Prakṛti* appears as conscious and *Puruṣa*, though inactive and alone, appears as active due to the activity of the three *guṇas* of *Prakṛti*.[2] In this conjunction the *Puruṣa* is a mere on-looker

[1] *Śaṁ-Pravacana* [illegible]

[2] S. K. [illegible]

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1 *Sāṁ-Pravacana Sūtra*. 2-29.

2 S. K. 1/20.

and the *Prakṛti* serves the purpose of liberating the *Puruṣa*. But this *Prakṛti*, though unconscious, behaves consciously like the gross body of the cow giving milk (unconscious) to the calf.[1]

The three *tattvas* that evolve from *Prakṛti* namely *Buddhi*, *Ahaṁkāra* and *Manas* have as their functions, cognition, self-sense and taking-up of the objects through the channel of senses.[2]

The *Buddhi*, self-sense, mind and the sense organs operate one after another and sometimes almost simultaneously.[3] The first evolute of *Prakṛti* is *Buddhi*. It is also called *Mahat* for its function is the highest as it liberates the *Puruṣa*.[4]

The *Prakṛti* is the equilibrium of the three *guṇas* or powers, *Sattva*, *Rajas* and *Tamas*.[5] From *Prakṛti* *Mahat* (*Buddhi*), from *Mahat* *Ahaṁkāra* (self-sense), from *Ahaṁkāra*, the five *Tanmātras* (the five subtle elements), the five conative and the five cognitive organs arise. From the *Tanmātras* the five gross elements arise. These with *Puruṣa* form the twentyfive principles of the empirical world.[1] Mind or *Manas* as a member of *Ahaṁkāra* makes *Saṁkalpa* (analysis) and as a member of the sense organs, enables them to function. It is the master of them all. From the *Sattva* elements of *Ahaṁkāra*, the eleven sense organs come to appear, and from its *Tamas* element the *Tanmātras*, the *Manas*, the cause of the gross elements evolve.[2] But the sense organs are not perceived. They are not to be confounded with the bodily organs.[3]

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[1] S. K. 1-57.
[2] Ibid. 29.
[3] S. P. S. 2/32 S. K. 30.
[4] Ibid. 2. 47.
[5] Ibid. I. 61.

We have given above, from two of the most authentic text books, the *Sāṁkhya Pravacana Sūtra* and *Sāṁkhya Kārikā*, the mechanism and the process of knowledge. The *Kārikā* also propounds the three sources of knowledge. These are *Diṣṭa*, or perception, *Anumāna* or inference and *Āpta Vacana* or Testimony.[4] The contact of the five cognitive organs with the objects, leads to perception as said above. The inferences are of three kinds. These are obtained by *Vyāptijñāna*. Vedas and Sayings of unfailing wisdom of seers are called *Āpta-Vacana.*[1] The inferential processes of Nyāya are taken into account. By the *Sāmānyatodṛṣṭa* process, the subtle principles like *Puruṣa, Prakṛti*, and *Mahat* are proved. Sāṁkhya recognises five *Vṛttis* of *Antaḥkaraṇa.* These are *Pramāṇa, Viparyaya* or false knowledge (e.g. taking rope as snake), sleep, memory and *Vikalpa* or subjective intellection having imaginary objects like the flower of the sky.[2]

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[1] S. K. I. 22 S. P. S. I. 61.
[2] S. K. 1/25.
[3] S. P. S. 2-23.
[4] S. K. 1/4

Yoga Epistemology:

The three means of knowledge, according to this system, are perception, inferences and scripture. Yoga philosophy accepts the Sāṃkhya metaphysics with slight modifications. *Citta* is *Mahat* of Sāṁkhya. It is also called *Antaḥkaraṇa.*

Perception occurs when *Citta* with the help of the sense organs, takes the form of an external object. Yoga accepts reality of the phenomena. Sensations differ, though the sensible objects are the same, for *Citta* receives the objects under the influence of one or other of the three *guṇas*. *Citta* is unconscious, but becomes conscious by the reflection of the self which is near it. As the self is the real knower, our knowledge is not changing though *Citta* is not constant. *Citta* has five states—*Kṣipta* (wandering) *Mugdha* (forgetful), *Vikṣipta* (occasionally steady), *Ekāgra* (one pointed), *Niruddha* (restrained).

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[1] Ibid. 1-5.

[2] S. P. S. 2-33.

Inference is the modification of mind (*Vṛtti*) by which we obtain the generic nature of an object. The basis of an inference is the invariable concomitance of the two things.

The statement of a trustworthy person is the third means of knowledge.

Nyāya Epistemology

Now we come to the Nyāya system of thought. Knowledge, according to Gautama, the founder of the old school, is an attribute of the soul. According to this school there are two kinds of knowledge the *Pramā* or valid and *Apramā*, the non-valid knowledge. There are *Pramātṛ* or the subject, *Prameya* or the object of knowledge, *Pramāṇa* or the valid source of knowledge, *Pramiti* or the resulting state of cognition.

On *Pramāṇa* or proof, depends the truth of all our knowledge. Of course, it is a basic assumption for all knowledge that the self (subject) and the object of knowledge come in contact and the mind stands between the two. This is the view of Gautama.

There are four kinds of *Pramāṇa*. These are *Pratyakṣa*, *Anumāna*, *Upamāna* and *Śabda*.

Pratyakṣa, as defined by Gangeśa, is direct apprehension which has no other cognition as its cause (ज्ञान-अकरणम्) Sense perception is the knowledge that arises from the contact of the five sense-organs with their particular objects. These sense organs are eyes, ears, nose, tongue and skin. But these are not effective by themselves unless they are associated with the mind and self, which make these organs function properly. The direct contact between a sense organ and a substance is one of conjunction or *Saṁyoga* while the indirect contact between a substance and its qualities, between genus and individuals, is one of inherence or *Samavāya*. Still more indirect is the contact with the class character of a quality. There are six ways of contact in all. These are (1) *Saṁyoga*, (2) *Saṁyukta-Samavāya*, (3) *Samavāya*, (4) *Samaveta-Samavāya*, (5) *Saṁyukta Samaveta-Samavāya*, and (6) *Viśeṣaṇatā* or relation of qualification. The contact of eye with a thing, say, a white flower, is an example of *Saṁyoga*. The contact with the quality, say whiteness of the flower, through the flower, is an example of *Samyukta-Samavāya*; contact with *guṇa* in the direct way, between the ear and the sound is the *Samavāya* relation, and when the eye is in contact with the class-character of the quality inherent in a substance, it is *Saṁyukta-Samaveta-Samavāya* contact. Perception of the non-existence of a vessel on the earth, is the example of the sixth form of contact. The non-existence of vessel that comes in contact with sense organs is adjectival (*viśeṣaṇa*) to the ground. It is a relation of contact with the qualification and the qualified.

Perceptual knowledge is of two kinds—*Savikalpa* and *Nirvikalpa*. *Savikalpa* or determinate perception is gained, when the perceived object is distinguished from other members of the group or class. It implies a genus, a differentia and an union of the two. Recognition is *Savikalpa* in character. *Nirvikalpa*-knowledge is gained when only a faint knowledge is gathered of the object. This is anterior to a full knowledge. According to the Neo-Naiyāyikas (*Navya-nāya*), a cognition of which one can be aware, is always determinate in character having for its content a substantive and an adjective in relation. In other words, it is a judgment, and judgment presupposes the cognition of the predicate, which must be indeterminate and non-judgmental, if we are to avoid the fallacy of infinite regress. The knowledge of the adjective is the condition of judgment and the initial cognition of the adjective must be indeterminate and unconditioned by prior cognition. As all knowledge liable to introspection, is determinate, the indeterminate cognition is not perceivable (*Atindriya*). It is the logical presupposition of determinate cognition and hence established by inference. All *Savikalpa* cognitions have some elements of representation. *Pratyabhijñā* or recognition is *Savikalpa* in which representation is definite. Perception may again be internal and external. Internal perception is of feelings, of pleasures, pains, desires, and the like. According to Gautama, there are four factors in perception (1) the senses, (2) their objects, (3) contact of the senses with objects, (4) and cognition produced by this contact. In perception there is the contact of self with *Manas*, when *Manas* with the help of the senses, comes in contact with the objects.

There are three other extraordinary perceptual cognitions called *Alaukika-Pratyakṣa* viz. *Sāmānyalakṣaṇa*, *Jñānalakṣaṇa* and *Yogaja Pratyakṣa*. *Sāmānyalakṣaṇa Pratyakṣa* takes note of all the members of a whole class. *Jñānalakṣaṇa Pratyakṣa* occurs when an adjective perceived before, becomes the content of a present perception. Seeing a sandal wood we see also its fragrance. The third kind of extraordinary perception is the intuition or insight of *Yogis* or Seers. (*Yogaja-dharma*):; To sum up:— In modern Nyāya we find two kinds of perceptions—*Laukika* or ordinary perception and *Alaukika* or extraordinary perception. The extraordinary perceptions are again of three types—*Sāmānyalakṣaṇa*, *Jñānalakṣaṇa* and *Yogaja*. *Sāmānyalakṣaṇa* is the perception of the whole class through the generic property perceived in an individual member of a class. By perceiving a pot we perceive the whole class of pots through its generic quality potness. The second class of perception is knowing a thing through a previous knowledge, as seeing a wood we say it is a fragrant sandal wood. The third is an intuitive perception.

No inference or *Anumāna*, Vātsāyana thinks, can follow in the absence of perception. Uddyotakāra gives some points of distinction between inference and perception.[1]

(1) Perception has no varieties, while inference has. Perception seems to have no variety so far as the general nature of perception as a cognitive act is concerned. It may have a

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[1] Nāyavārtika ii. 1. 31 quoted by R. K. Hist of Phil. & S. C. Chatterjee ·Nyāya theory of knowledge pp. 72-3, p. 235.

good number of subdivisions because of the difference of the respective senses. But that does not (spell any distinction) make one suppose that perception has varieties.

(2) Perception is confined to a present moment, while inference may refer to past, present and future.

(3) Inference has a factor of remembrance, of *Vyāpti*. As regards the constituents of inference, we have three terms and not less than three propositions. The three terms are *Pakṣa* (minor term), *Sādhya* (major term) and *Hetu* (middle term). *Pakṣa* is the subject of inference. *Sādhya* is the object and *Hetu* or *Liṅga* is the ground of inference.

Gangeśa defines inferential knowledge or *Anumāna* as based on another knowledge. *Vyāpti* is concomitance or necessary relation between two things called *Parāmarśa*. It is the synthetic judgment produced by the knowledge of *Vyāpti* (major premise) and *Pakṣadharmatā* (minor premise). Inference is the resultant of this combined knowledge. *Vyāpti* is also called *Avinābhāva* (absence of exception) by some or *Avyabhicārita Sāhacarya* (existing together) by others. A *Vyāpti* of unequal extension is called *Asamavyāpti* or *Viṣamavyāpti* and it becomes

Samavyāpti, where there is equal distribution of *Hetu* and *Sādhya*. In inference, the minimum condition is the *Vyāpti* between the middle and major terms. One of the premises must be universal. *Anumānas* are of three kinds according to Gautama. These are *Pūrvavat* (inferring effect from cause), *Śeṣavat* (inferring cause from effect) and *Sāmānyatadṛṣṭa* (inferring an individual or species from the generic character). When we infer impending rain from the cloud, the first case of inference is in operation. When we infer rain-fall in the source, from the river in flood, it is a case of *Śeṣavat*. The last case is an inference based on uniformity of experience, as a horse of the animals gives rise to the idea of a tail of an unknown animal. In *Anumāna* the subject possesses a property which is pervaded or constantly attended (concomitance) by another property. Smoke is constantly attended by fire. By the sign (*Hetu*) or the middle term, we proceed to infer in the subject (*Pakṣa*), the *Sādhya* or major term. Inference (*Anumāna*) is again classified under three heads viz.—*Kevalavayin*, *Kevalavyatirekin* and *Anvayavyatirekin*, according to the respective character of the concomitance of the middle with the major term.

Nyāya syllogism has five members (i) *Pratijñā* or proposition, (ii) *Hetu* or reason or the middle term, (iii) *Udāharaṇa* or example with a general proposition, (iv) *Upanaya* or application, (v) *Nigamana* or the conclusion. These are called *Avayavas* (members)[1].

(1) Proposition—The hill is on fire. (2) Reason —Because it is smoky. (3) The general proposition—All smoky things are firy, e.g. A kitchen (4) Application—This hill is such (5) Conclusion—The hill is on fire.

In inference we have the minor premise, which is the result of perception, and the major premise is the result of induction. This major premise is an universal proposition. The universal propositions or inductions are arrived at by enumeration, and intuition aided by indirect proof. The *Naiyāikas* are careful about universal propositions and take all precautions to formulate them. In the absence of scientific and laboratory methods, they use *Tarka* and other methods in observation.

Universal propositions, according to the Buddhist logicians, are not derived by observation only, but by apriori notion of identity and causal necessity. Causal relation is a self-evident axiom, known intuitively and borne out by experience. There must be positive negative relation (*Anvayavyātireki*). There is first, the uniform agreement in presence, between two related things (*Anvaya*), then there is the uniform agreement in absence, between the two related (*Vyātireka*) and lastly there is no observed contrary example (*Vyabhicāra*). Plurality of causes is not recognised by the *Naiyāikas*; the belief in it is due to defect in our analysis. There are three kinds of causes, the material or *Upādāna* (a substance), the non-material (*Asamavāyi*) or non-inherent cause (a quality or action), and the efficient (*Nimitta*) cause. The efficient cause is the motive force or the means by which an effect is produced. The thread is an example of material cause, the conjunction of the threads is the non-material cause, and the weaver is the efficient cause of cloth.

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[1] Nyāya Sūtra 1.1.32.

Next comes *Upamāna*, by which we gather knowledge of a thing from similarity.

Śabda-pramāṇa or verbal knowledge or authority, is another source of knowledge. *Śabda* becomes *Pramāṇa* only when it comes from seers. It is based on their direct knowledge. It is *Dṛṣṭārthā* or of perceptible world and *Adṛṣṭārthā* or of imperceptible world.

The two other sources of knowledge, namely *Arthāpatti* or presumption and *Abhāva* or non-existence are not recognised separately by the *Naiyāikas*. *Smṛti* or remembrance is accepted as a source of knowledge by the later *Naiyāyikas* only.

Over and above *Pramāṇa* there are other fifteen *Padārthas* or categories viz.—(1) *Prameya* or that which is to be known, the object of true knowledge. These are twelve in number such as (a) *Ātman* (Ego), (b) *Śarīra* (Body), (c) *Indriya* (the five senses of cognition), (d) *Artha* (the objects of our senses), (e) *Buddhi* (the knowledge of perception etc.), (f) *Manas* (mind, the organ of internal perception etc.), (g) *Pravṛtti* (the action that is done by mind, body or speech), (h) *Daṣā* (the springs of action viz. *Rāga*, *Dveṣa* and *Moha*, (i) *Pretyabhāva* (re-birth), (j) *Phala*, (feeling of pleasure or pain, (k) *Duḥkḥa* (pain), (l) *Apavarga* (total freedom from pain). (2) *Saṁśaya* (doubt), (3) *Prayojana* (end or goal), (4) *Dṛiṣṭānta* (example), (5) *Siddhānta* (conclusion), (6) *Avayava* (five members of syllogism), (7) *Tarka* (reduction and absurdum), (8) *Nirṇaya* (the result of Tarka), (9) *Vāda* (discussion), (10) *Jalpa* (a process of argument used to defeat the other side in debate.—Wrangling) (11) *Vitaṇḍā* (a kind of debate used to defeat the opposite side irrespective of finding any truth—cavilling). (12) *Hetvābhāsa* (a defective ground—fallacy). (13) *Chala* (a process, by which we find out the defect of an argument by putting on different interpretations on the words used by other party—Quibbling). (14) *Jāti* (a spacious argument, based on superficial analogy and not *Vyāpti*). (15) *Nigrahasthāna* (the occasion of the defect of the opponent). A real knowledge of these sixteen *Padārthas* (categories of reality), leads to emancipation or *Mokṣa*.

Navyanyāya or the neo-logic of Indian thought, takes its origin from Gangeśa Upādhyāya of Mithilā. He rearranged the old school of thought in a new way. These philosophers put sixteen *Padārthas* of Gautama, under seven *Padārthas* (categories of reality) of the Vaiśeṣika. These are (1) *Dravya* (the nine substances like, earth, water, fire, air, ether, time, space, soul and mind, (2) *Guṇa* (qualities, such as, smell, touch etc.), (3) *Karma* (action), (4) *Sāmānya* or *Jāti* (generality, as humanity etc)., (5) *Viśeṣa* (ultimate differentia). In each atom there is something which makes it distinct from other atoms and ultimately brings about the difference between the things that are made-up of these atoms. (6) *Samavāya* (the relation of inference between the substance and the quality etc.), (7) *Abhāva* (the absence of a thing). This absence is of two kinds: *Saṁsargābhāva* and *Anyonyābhāva*. The first has three forms; *Prāgabhāva*—the absence of a thing which will appear in future; *Dhvaṁsa*—the destruction of an existing thing and *Atyantābhāva* – absolute absence. The second is the difference that makes a thing different from others.

Vaiśeṣika Epistemology:

Next in the historical order, comes Vaiśeṣika epistemology of Kanāda. It is almost identical with the Nyāya system. According to this, objects come in contact with the sense organs, and these in their turn, are connected with mind, and mind when linked-up with *Ātman*, produces knowledge. This is the process of knowledge of perception.[1] All knowledge is of the Soul or *Ātman* and not of the gross body.[2] The sensible world and the relations in it are real.

The scope of knowledge, in this system, is infinite. There are four sources of valid knowledge or *Pramāṇas*, according to Vaiśeṣika. These are *Pratyakṣa*, *Laingika*, *Smṛti* and *Ārṣajñāna*. *Pratyakṣa* or perception, is immediate knowledge caused by sense-object contact. It may be determinate or indeterminate. By *Pratyakṣa*, we are able to gather knowledge of gross substance, of qualities and of actions. Gross substances are made-up of fine parts or atoms (*Paramāṇu*) which are not fit for perception. The Vaiśeṣikas bring under *Laingika* (inference), *Upamāna* (comparison), *Aitihya* (tradition), and *Śabda* (verbal knowledge). *Ceṣṭā* (gesture), *Arthāpatti* (implication), *Saṁbhava* (inclusion), and *Abhāva* (negation)—these also belong to *Laingika* knowledge. *Yogic* perception means perception of superior souls and this perception is of the psychic self (*Ātmapratyakṣa*). The proof of the scriptures comes under inference. *Smṛti* is remembrance, and *Ārṣajñānam* is knowledge of the seers.

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[1] Vaiśeṣika Sūtra—3. 1. 18

[2] Ibid 3. 1. 3.

Vaiśeṣika Darśana coins its name from *Viśeṣa*. By *Viśeṣa* we mean ultimate differentia, which confers particularity. Every *Padārtha* or thing with existence and name, has a particularity by which we get knowledge about it, and this is ever present in it and this differentiates it from others.

The Vaiśeṣikas believe in the plurality of things ultimately reducible to the seven categories. These objects are different from one another. The difference of composite things is constituted by the different qualities or acts or universals. But the eternal entities such as atoms of the same class and *Ātman* in the free state, have similar attributes, and thus cannot be differentiated from others. Difference is not intrinsic to things, but induced by some attributes. The ultimate difference of these eternal substances is constituted by an attribute, which is different by itself and makes each substance different by its inherence in it. This is called *Viśeṣa* (ultimate differentia).

The qualities of the primal atoms or *Paramāṇu* are inferred from those of the effects according to the dictum. The qualities of effects are conditioned by those of the causes.

In this system the plurality of things are ultimately classed under seven categories; these are (1) *Dravya*, (2) *Guṇa*, (3) *Karma*, (4) *Sāmānya*, (5) *Viśeṣa*, (6) *Samavāya*, and (7) *Abhāva*. *Dravya* or substance is the substrata of qualities actual or potential, present or future. It may be eternal, simple, uncaused or non-eternal, compound and caused. Substances are of nine kinds viz., earth, water, light, air, *Ākāśa* (ether), time, space, soul and mind.[1] Space makes room for co-existence of substances and their positions in different directions. *Ākāśa* is a simple continuous infinite substance, which is the material cause of sound (*Śabda*) its distinguishing quality. The ultimate particles of the first four substances are called *Paramāṇu* or atoms. All these are imperceptible. The atomic structure of the material bodies is explained in this way—Two atoms combine to produce a *Diad* (*Dvyaṇuka*) and three such *Diads* when combined, produce a molecule (*Trasareṇu* or *Tryaṇuka* or *Truti*). The *Diad* has the same magnitude as the atoms, and it is the molecule that acquires greater magnitude. The diverse combination of molecules produces the gross material world. These elemental substances in combination, produce the material world. The atoms are globular in shape, have no inside or outside and are non-spatial and indestructible.

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[1] Vai. Sūt. 1. 1. 5.

The first five substances are also designated as *Bhūtas* (elements), which are defined as substances having qualities perceptible by external senses. They possess qualities, specific and generic both. They have four general qualities of four elements, as also of priority and posteriority.

Guṇa or quality, unlike substance, cannot exist independent of substance. There are seventeen *Guṇas* according to this philosophy. These are *Rūpa* (colour), *Rasa* (taste), *Gandha* (smell), *Sparśa* (touch), *Saṁkhyā* (number), *Parimāṇa* (size), *Pārthakya* (individuality), *Saṁyoga* (conjunction), *Viyoga* (disjunction), *Paratva* (priority), *Aparatva* (posteriority), *Buddhi* (knowledge), *Sukha* (pleasure), *Dukḥa* (pain), *Icchā* (desire), *Dveṣa* (aversion), *Pṛthakattva* (differentiation), and *Prajatna* (effort). To these, Praśastipāda adds seven more viz., heaviness, fluidity, viscidity, merit, sound and faculty.[1]

Kaṇāda describes *Karma* or motion as throwing up, throwing down, contracting, stretching and locomotion. It resides in one substance for a moment, has no quality, and depends on nothing for causing conjunction and disjunction.[2]

Sāmānya or *Jāti* (universal) is the common property which resides in substance, quality and action. *Viśeṣa* or ultimate differentia is the attribute which makes eternal substances different from one another, without reference to any other qualifying attribute. Kaṇāda makes particularity and generality both dependent on thought. *Samavāya* or inherence is the eternal relation which obtains between substance and quality, whole and parts, individuals and universe, motion and objects in motion. It is got by inference. In contrast to this, *Saṁyoga* is a temporal relation.

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[1] Vaiśeṣika Sūtra—1. 1. 6. p. 94.

[2] Ibid., 1. 1. 7.

Abhāva (non-existence) is divided broadly into two types, viz. (1) *Anyonyābhāva* (mutual non-existence or numerical difference) and (2) *Saṁsargābhāva* (relational non-existence). The latter has three varieties, (i) *Atyantābhāva* (absolute), (ii) *Prāgabhāva* (prior) and (iii) *Pradhaṃsābhāva* (posterior non-existence of destruction). The difference of identity of A and of B illustrates 1, and 2(i) is illustrated by the absolute non-existence of colour in air, 2 (ii) the non-existence of the effect in the material cause before its production, and 2 (iii) by the destruction of the effect after its origination. *Abhāva* or non-existence stands for all negative categories. Kaṇāda does not seem to recognise this category. Vaiśeṣika represents this world as a system of plurality consisting of eternal and temporal objects, the latter having derivatives of the former. The ultimate constituents are eternal, real and independent of the perceiving mind.

The Mīmāṁsā System:

This system is propounded by Jaimini. This system has two schools of importance—one of Kumārila and another of Prabhākara. Jaimini himself accepts three sources of knowledge—*Pratyakṣa* (perception), *Anumāṇa* (inference) and *Śabda* (testimony). *Aitihya* (rumour) and *Smṛti* (recollection) are rejected by Kumārīla. Prabhākara adds *Upamāna* (comparison) and *Arthāpatti* (implication) and Kumārīla adds *Anupalabdhi* (non-apprehension).

According to Kumārīla, perceptual knowledge is the result of the modification of the soul. The soul has cognition when it is in contact with *Manas*, the *Manas* with the sense organs, and the sense organs with the objects. The objects of experience take two forms—one internal, e.g. pain or pleasure, and another external, the external objects of the world. There are four elements in this operation viz. (1) *Jñātṛ* (the knower), (2) *Jñeya* (the object known), (3) *Jñāna Kāraṇa* (the instrument of knowledge), (4) Jñātatā (the cognisedness) the final result in the object. This is the view of Kumārīla. With Prabhākara, *Pratyakṣa* is *Sākṣāt Pratīti* or direct apprehension.[1]

According to both Kumārīla and Prabhākara perception can be both determinate and indeterminate and both of them are valid. On the first contact of the sense organ with an object, we have indeterminate perception, i.e. cognition, without relation. When the apprehension is determinate, we know the relation. All recognitions are accepted as presentative cognition. Yogic intuition is not accepted by them. Dreams are remembrances, when the self is connected with mind.

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[1] Prakāraṇapañcikā, p. 51.

In inference, no sense-object contact is present. It is based upon a permanent relation between two things according to Śabara. Kumārīla speaks of three types of relations as the basis of inference cases, (1) A case of co-existence as of the two stars of *Kṛttikā* and *Rohini*, the rise of one is inferred from the rise of the other, (2) The case of identity as in the case of relation between a genus and species, (3) The case of cause and effect. The causal relation is an instance of invariable concomitance (*Vyāpti*), which is a natural relation, meaning there is no extraneous influence. Inference proceeds from perception and it involves memory. It must be a knowledge. Kumārīla gives two kinds of inferences, (1) inference from permanent relation of two concrete things, (2) the inference of the relation, of two motions without sense perception, as the movement of the sun from its change of place. Both Prabhākara and Kumārīla admit of three members—*Pratijñā* (statement of the case), the major premise (the general rule) and the minor premise. There are two kinds of inferences, *Dṛṣṭasvalakṣaṇa* which has its specific character perceived, *Adṛṣṭasvalakṣaṇa* which has its specific character unperceived. The inference of fire from smoke, and the inference of the burning capacity of fire, are examples of these two.

Śabda Pramāṇa yields knowledge from sentence uttered by men of trust and that of the Vedas which are eternal, and the cognition of Vedic *Sūtra* cannot be set aside under any condition. *Upamāna* is comparison. Comparison is a judgment through similarity. *Arthāpatti* is implication. This consists in the necessary assumption of a fact or thing which explains a fact known by perception or by report. Devadatta is becoming more bulky, but he takes no food during the day. So he must be eating in the night. *Anupalabdhi* is non-apprehension or *Abhāva*, which gives rise to a negative judgment. It is non-existent in the contact. Prabhākara and his followers do not accept this. Mīmāṁsakas think that a knowledge is true so long as it is not disproved. This is the self-evident nature of all knowledge. With the Prabhākaras, all knowledge is self-luminous (*Svapratyakṣa*) but not so with the *Bhaṭṭas*. With Prabhākara, in every cognition, there is a simultaneous appearance of the knower and the knowledge, but with Kumārila, the knower is not so known nor the knowledge act, but only the object.

The Advaita Vedānta of Śaṁkara:

Śaṁkara, the most important exponent of Advaita or non-dualistic Vedānta, gives a critical analysis of knowledge. He with his followers gives a wonderful system of philosophy. For him, there are two classes of knowledge. The first and the foremost, is the knowledge of the transcendental reality, Brahman. *Śruti* is the source of knowledge of this reality. But there is another reality which is of the world of appearance. Though Śaṁkara gives only three sources of knowledge, viz. perception, inference and scriptural testimony, later writers of his school, add three more; these are (1) *Upamāna* (knowledge of similarity), (2) *Arthāpatti* (implication), (3) *Anupalabdhi* (non-perception).

Perception, is accepted as a source of knowledge of this manifold phenomenal world, when it is carefully regulated and logically controlled, and when this evidence of perception is not contradicted by other sources. It can speak nothing of the transcendental reality, *Advaita Siddhi*. Perception involves difference between perceptual objects, the perceptual process and the percepts, and is hence concerned with empirical reality.

Vedānta accepts cognition in perception, but no recognition or memory. A valid source of knowledge is cognisance of a fact not known before, that is, by a previous cognition. Memory is thus excluded from its purview. Sense perception is supposed to be made possible by the following process. First the *Manas* comes in contact with the senses, the senses with the object, *Manas* with consciousness, gets out like a ray of light, reaches the object, and is identified with the object, as the water of ocean reaches a pool and fills it up and takes its form. There the knowledge cycle is completed and the object is revealed. The senses of sight and hearing only go out, and the other senses produce knowledge without movement. The contact of the sense with a distant object is established by the movement of the sense and the *Manas* (mind-stuff), and in the case of taste and touch, the object being necessarily in touch with the sense, no movement is necessary. Olfactory perception is supposed to take place, when the odorous particles reach the nostrils. Vedāntic perception is different from the Western psychological order, which posits the movement of the object or a ray of light, the condition of visual perception. The *Antaḥkaraṇa* goes out and assumes the form of the object and this is called *Vṛtti*.

Perception requires correspondence of three things. *Pramātṛ Caitanya*, *Pramāṇa Caitanya* and

Viṣaya Caitanya (1) *Pramātṛ Caitanya*, is the subject who is the knower, the conscious self which is determined by the internal organ or *Antaḥkaraṇa*. (2) *Pramāṇa Caitanya* is cognitive consciousness determined by the *Vṛtti* or the transformation of internal organs. It is the process of knowledge. (3) *Viṣaya Caitanya*, the object of knowledge, is the consciousness determined by the object of cognition. The *Antaḥkaraṇa* or the internal organ is the seat of function of the senses and is distinct from the outer organs. It is the receiving and organising agent of what is received through the senses. *Antaḥkaraṇa* becomes conscious of the object outside through the power of *Ātman* which is at the back of all cognition. *Vṛtti* is the modification of the *Antaḥkaraṇa* which reveals the object. These *Vṛttis* are of four kinds:—*Saṁśaya* (indetermination) *Niścaya* (determination) *Garva* (self-consciousness) *Smaraṇa* (remembrance). *Antaḥkaraṇa* is called mind, when it is indeterminate. It is called *Buddhi* or understanding, when it is determinate. It is *Ahaṁkāra* when it has self-consciousness with reference to the subject 'I' and it is *Citta* when it is concentrated and when it remembers.

The cause of cognition is a complex one in which both *Antaḥkaraṇa* and ultimate consciousness function together. *Antaḥkaraṇa* differs with individuals and functions within varying limits and depends on the past conduct of the individual to whom it belongs.

Manas includes *Saṁkalpa* and *Vikalpa* (conation and non-conation), sense perception, memory, desires and emotions. *Buddhi* means conception, judgement, reasoning and self-consciousness. Sāṁkhya admits *Ahaṁkāra* and merges *Citta* with *Buddhi*. Other authors identify *Citta* with *Manas* and *Buddhi* with *Ahaṁkāra*.

There are two kinds of perceptions—one caused by the exercise of the senses (*Indriyajanyaṁ*) and the other not caused as such (*Indriyājanyaṁ*). There are inner perceptions of desire, anger etc.

There is another classification of perception—*Savikalpa* (determinate) and *Nirvikalpa* (indeterminate). In the former case, the distinction between the object and its qualities is cognised, and in the latter case, it is undiscursive and undiscerning.

Vṛtti is necessary, according to Vedānta, inasmuch as the consciousness of *Jīva* is veiled by *Māyā*. The *Vṛtti* establishes identity of the *Antaḥkaraṇa* and that of the *Jīva* with Brahman, expressive and immanent in the concrete objects. But from the standpoint of *Ekajīvavāda*, when *Jīva* is infinite and all pervasive, the phenomenal world has no separate existence and everything is subjective. This theory reduces all knowledge to introspection. It accepts *Vṛtti* as the transformation of *Avidyā* and not of the *Antaḥkaraṇa*, because finally, *Antaḥkaraṇa* is nothing but an illusion.

Perception of *Jīva* is different, according to Vedānta, from that of *Iśvara*. *Iśvara* perceives without the help of *Vṛtti*, and this is called *Svarupataḥ Pratyakṣa*. *Iśvara* perceives immediately, while *Jīva* perceives through *Vṛtti*, and this is called *Phalataḥ Pratyakṣa*.

Vedāntic inference is practically the same as that of Nyāya and Mīmāṁsā. The objects of knowledge are at bottom phases of spirit in nature and are called *Viṣaya Caitanya*, belonging to the consciousness of *Brahman*.

Knowledge is *Para Brhaman* (*Satyam, Jñānam Anantam Brahma*) in the metaphysical sense. In that sense it is self-expressive or *Svaprakāśa Pratyakṣa-pramācātra-Caitanyam*[1] and self-evident or *Svataḥ-pramāṇa*, It requires no co-herence or correspondence. But in the empirical sense, the *Tripuṭi* of *Jñāna*, subject, object and the *Vṛtti*, become identified. But according to the Vivaraṇa School, *Sākṣi Caitanya*, which is self in us, becomes identified with the object of consciousness and the object is revealed. All knowledge can be valid in the empirical sense, and exist so long as *Brahma Jñāna* is not attained. The material texture of all knowledge in the empirical sense, is the *Avidyā* which gives us wrong knowledge and is endless and natural. This relative knowledge is not totally illusory, because it is grounded in reality (Brahman), but leads us to the higher knowledge of *Ātman* and thus is useful. It is only imperfect and relative, since the ultimate reality envisaged, is limited by the diverse forms of *Avidyā*.

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[1] Dharmarāja—Vedānta Paribhāṣā p. 35.

As regards the differences between *Avidyā* and *Māyā*, we must note, that it is *Māyā* from the objective side and *Avidyā* from the subjective. When we speak of the origin and change in the world process, we attribute it to *Māyā*. Śaṁkara does not make any distinction between *Māyā* and *Avidyā*.

There are different meanings of *Māyā* in Saṁkara's system :]

(1) The phenomenal character of the world is called *Māyā* (2) The incomprehensible nature of the relation between Brahman, the ultimate reality, and the world, the phenomenal reality is called *Māyā*. (3) The world, which is supported by Brahman

though not touching it, is called *Māyā*. (4) The principle, for which the Brahman seems to become the world, is called *Māyā*. (5) The self-expressing power of *Iśvara* is called *Māyā* (6) *Māyā* is the object of the subject *Iśvara*.

Different uses of *Māyā* are noted by different Vedāntins in the following way. (1) *Māyā* is a mysterious entity—the total nescience and *Avidyā* is a part of that. (2) *Māyā* is the primal *Prakṛti* and has the predominance of *Sattva*, and is *Avidyā*, when there is the predominance of *Rajas*. When Brahman is reflected upon *Māyā*, it is *Iśvara*, and when it is reflected upon *Avidyā* or *Antaḥkaraṇa*, it is *Jīva*.

The Philosophy of Rāmānuja

Now we come to the Rāmānuja-darśna. According to him, there are three sources of knowledge Viz. *Pratyakṣa* (perception), *Anumāna* (inference), and *Āgama* (scripture).

Perceptual or *Pratyakṣa* knowledge, is of three kinds. *Nitya Pratyakṣa*, is knowledge of God, who knows everything always, and *Anitya Pratyakṣa*, is knowledge of human beings.

Yogic Pratyakṣa is the super sensuous knowledge of the seers, while *Ayogin* Pratyakṣa, is the knowledge of ordinary human beings. This knowledge is acquired by association or connection of sense organs with the objects having qualities. Rāmānujists are of the same opinion with that of the Naiyāikas about this. *Pratyakṣa* knowledge is defined as *Sākṣāt-kāri Pramā Pratyakṣam*[1], direct knowledges are true knowledges.

Perception, for Rāmānuja, is both determinate and indeterminate. It is indeterminate, when we recognise some of its specific characters without any direct reference to past associations, and is seen for the first time. After seeing it repeatedly we come to know determinate qualities with reference to past times and different places of experience.[2]

Again, for Rāmānuja, the individual alone, is real. Class essence is not recognised. We can know resemblance, by seeing the individuals. Perception gives us knowledge of a thing as also its difference from others (*Bhedābheda*). *Smṛti* or memory, and *Pratyabhijñāna* or recognition, are the two sources that help in the process of Knowledge.

Yogic perception, is only a specialised class of perception of the seers. According to Rāmānuja, the objects are compound, because they are formed by *Pañcikaraṇa* (quintuplication). One thing comes to be known as another, only because, some of the elements of similarity preponderate. A shell appears as silver because similar elements between them tally in quality, and these are brought into a focus. Rāmānujists are, *Satkhyāti-Vādins*.. *Yathārthaṃ Sarvavijñānamiti Vedavidāṃmatam*[1]. All knowledge, is knowledge of the real. The real is same, only quantity of the five elements in it may vary. Thus, according to Rāmānuja, there can be no error.

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[1] Nyāya Pariśuddhi p. 70

[2] Das Gupta. Hist. of Ind. Phi. p. 221 vol. II.

But our knowledge, is always partial and imperfect. In erroneous knowledge, we fail to take notice of the features of an object that can satisfy our particular end in view. The conch cannot satisfy the needs of silver. Useful knowledge is not perfect, and represents only a part of the whole of reality. Full and perfect knowledge is possible, only when the *Jīva* is free or *Mukta*; freed from all defects, he realises the whole of truth. This is possible through the grace of God alone.

Inference is obtained from general propositions and principles got by *Vyāpti*, which may be suggested even from a single instance. But Venkatanātha, wants a wider experience. The syllogism, according to this school, has either the first or last three members of the Nyāya system. They do not accept *Kevala Vyātireki* inference. Comparison, for them, is either remembrance or inference. Implication and subsumption are kinds of inferences.

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[1] Sree Bhāṣya—Rāmānuja

Madhvācārya School.

Madhvācārya, the exponent of dualism, defines valid knowledge, as cognition of a thing, in its true character *Yathārtha Jñānaṃ Pramā*[1]. Hence, error by this theory, is not knowledge.

According to them there, are three sources of knowledge, perception, inference and scriptural testimony.[2] Comparison is included in inference. Remembrance, is accepted by Jayatīrtha, as a source of knowledge. Perception deals with facts that are open to our senses. There is a novel distinction of sense-organs in Madhvā philosophy. The sense organs are divided into two classes (I) *Prākṛta* and (II) *Pramātṛ Svarūpa*. *Prākṛta Indriyas*, are the five sense organs and mind the sixth. They are divided into three classes (1) *Daiva*, those that produce unfailing truth in most cases (2) *Asura*, those that produce invalid knowledge generally (3) *Mādhyama* or those that steer half-way.

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[1] Pramāṇa Paddhati p. 9

[2] Vedānta Darśana. A. Śastrī-p.-69 vol. ii

The *Pramātṛ Svarūpa* or *Sākṣī* intelligence, is the subtle intelligence that gathers knowledge without the organs.

Thus, perception according to this school, is of seven kinds with reference to the seven sense organs[1] *Pratyakṣa* or perception is the contact of the flawless sense organs with their objects. There is no indeterminate perception in this theory. *Anumāna* or inference is the universal concomitance or co-existence. According to this school, all knowledge is self-valid in nature and error is accidental. Inference systematises perceptual and other data. Scriptural testimony may be *Pauruṣeya* or personal and *Apauruṣeya* or impersonal or uncreated.

Madhvācarya thinks, that in all experience, we must have a knower and a thing to know, the subject and object must exist. The world is real. Realities are of two kinds. Independent (*Svatantra*) and dependent (*Asvatantra*). God's reality is *Svatantra*. The dependents are of two kinds, positive (*Bhāva*) and negative (*Abhāva*). *Pramāṇa* according to this school, is both knowledge and its instruments. *Anupramāṇa* is instrument of knowledge. *Pramāṇa* or knowledge is of two kinds-(1) *Kevala Pramāṇa*—These are (i) *Īśvarajñāna* or knowledge of God, (ii) *Lakṣmījñāna* or knowledge which is next to God, in respect of certitude etc. (iii) *Yogic* knowledge or knowledge of the seers (2) *Anupramāṇa* is *Pratyakṣa*, *Anumāna*, *Śabda*.[1]

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[1] Pramāṇa Ch. P. 139

Ethical Epistemology of the Gītā:

According to the Gītā, *Puruṣottama* alone is the knower, knowledge and knowable. His *Parā-Prakṛti* is the self or soul in us, and his *Aparā-Prakṛti* is the eight-fold elements. He is *Kṣetrajñā* or the knower of this human body, as also the knower of this cosmic world, consisting of five elements, Ego, Intellect, The undifferentiated (*Prakṛti*), ten sense organs, mind, the objects of the five sense organs and wish, aversion, pleasure, pain, the power of diverse mental functions, consciousness and endurance. Knowledge is ethically divided into (1) *Svāttika Jñāna* or knowing multitudinous universe, as manifestations of the one Reality, (2) *Rājasikajñāna* or knowing the multiform, as various entities, (3)

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[1] Vedānta Darśana—A. Śāstrī. P. 48-49. Vol. ii

Tāmasika jñāna or knowing the phenomenal world as real, and to be attached to objects that are false, transitory and limited.[1] When our nature becomes *Svāttika*, *Jñāna* is pure, lustrous, that is freed from all defects and is self-expressing. By *Jñāna*, we come to know the identity of the cosmic world and ourselves. Our empirical self, is nothing but an atom of *Puruṣottama*. The result of this knowledge is, that it destroys all grief, all sins, and all bondage. The highest knowledge is to know *Puruṣottama* as the transcendental, cosmic and immanent entity, to feel His identity with us, to see Him every where as working out the world system and to see everything in Him, first knowing our identity with the cosmic world.

Indian Epistemology in general:

Indian epistemology has in its system, dogmatism, empiricism, rationalism, dialecticism and intuitionism. It is dogmatic in the sense that except the Cārvākism, the Buddhism and the Jainism, all the systems are rooted in the Vedās. Again Sāṁkhya, Nyāya and Vaiśeṣika systems, are empirical inasmuch as they depend on our experience.

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[1] Gītā 18/20-22

A free and critical dialectic spirit is to be found in the systems of Buddhism, Jainism, Nyāya, Uttar-mimāṁsa and Saṁkhya. Even the Vedānta and the Mimāṁsā systems, are rationalistic in their epistemological outlook unlike most of the western philosophies. Some philosophical truths, like, self, immortality of soul and God, require intuitive knowledge which dawns upon neutral and unattached mental attitude. Constant meditation, which makes our being one with the objects of knowledge, gives us this intuitive knowledge of these subjects. It is not absolute truth that matters, but our deep conviction and pragmatic attitude towards them, that is of real worth to us.

The Jainas are realists and pluralists, while the Buddhists are idealists. The Vaibhāṣikas are experiencialists. They accept that external world can be known by direct contact; the Sautrāntrikas believe in representation of the objects, while the Yogācāras are subjectivists.

The activity theory of knowledge, is advocated by the Buddhists and the Mimāṁsakas. Knowledge is valid when it leads us to the object of knowledge. It has practical efficiency hence pragmatic.

That knowledge is a quality, is advocated by Sāṁkhya, Yoga, Viśiṣtādvaita, Nyāya and Vaiśeṣika.

By knowledge, they mean, that knowledge is an attribute of the Soul.

There are some other points about knowledge in Indian philosophy. 'Is knowledge self evident' —this question differs with different schools. An object of knowledge should be something novel. Again there are vague knowing and clear kngowledge. In Indian epistemology there is a knowledge of God. This knowledge is absolute knowledge or *Kevala* knowledge, of the Mādvas, and is not found in any other philosophy of the world. The knowledge of the seers, or supersensible knowledge, is also peculiar to Indian Epistemology.

Greek Epistemology

In western philosophy, the first system that appears before us is the Greek Philosophy. There in Greece, we find, the first dawn of knowledge. Though Greek Philosophy dates from Thales, their true epistemology begins with Socrates. In every sphere there are reactionary ideas. In ancient India, there were materialists like the Cārvākas; in Greece we find, a group of thinkers who brought in a shade of doubt, in the theory of knowledge. This current is to be noticed in the teachings of Xenophanes, Parmenides, Diogenes, Antisthenes, Pyrrho, and culminating in the ideas of the Sophists. The Sophists denied all knowledge, as it is subjective and different men have different opinions and no universal truth can be had. A germ of it is found in the Socratic saying 'I know nothing'. But in Greece, as elsewhere, this scepticism, brought in its wake, the highest knowledge.

The knowledge of the early Greeks centered round the problem of the universe, viz. what is the staff of it. Gradually the problem of knowledge made its appearance and Socrates was the first man to make a mark in this direction. The Greeks did not distinguish between language and thought. Logos means reasoning and word both. Heraclitus, spoke of the voice of reasoning in opposition to sensation. The Eleatics were diffident towards the senses. We can count the following Greek Philosophers as rationlists viz. Anaxagoras, Pythagoras, Heraclitus and Permenides.

Socrates: (*B. C.* 470-399)

Socrates was of opinion that knowledge of science cannot given us true knowledge. We can not know the nature, origin or the end of the universe. All that we know is, what we ought to be. Thus, his epistemology, leads to self-knowledge.

He is the founder according to Aristotle, of ethics, while the Sophists tried to establish individualism. Socrates wanted to establish that the truth of things remains in general notions. To him, all knowledge is to establish a relation between an individual and a universal concept. We know something, only when we find out the relation between a particular and a general. A true knowledge is rational and that is virtue. He may be called the founder of the pragmatic school. For him, all knowledge is not for its own sake but for some practical ends. He wanted to know what is virtue in order to practice it. General notions are established by deduction and induction process. Learning, for him, is the apprehension of inborn knowledge—knowledge is recovery.

In the opinion of Socrates, until and unless the universal essence or class concept is known, no knowledge is possible.[1] He gave a eath blow to uncertainty of knowledge, by combining them under a general concept.[2] We come to the general ideas by taking all the qualities, the class objects have in common, and excluding those in which they differ.[3]

[1] Zeller p. 171 vol. 1

[2] Ibid. p. 407 vol. 2

[3] Stace p. 143

For him, knowledge is the sole virtue, and everything else is included in it. Upon this theory of concept, the whole subsequent idealism is based.[1]

Socrates turned the mind of man towards his own consciousness. For him, ideas are what are present immediately to our thought.

Plato: (*B. C.* 429-347)

In Thiaetetus, Plato refutes the three current theories of knowledge (1) Knowledge is identical with sense apprehension. (2) Knowledge is true belief (3) It is true belief accompanied by definition.

Plato, the disciple of Socrates, bifurcated the world into the world of reals and the world of appearances or the world of flux, as Heraclitus puts it. For, knowledge about the shifting or phenomenal world, is changing and thus is not true. So, for him, this is not the field of knowledge. A real knowledge is a knowledge that corresponds to some real objects in the world of forms. The forms or ideas constitute the world of forms. The forms are uncreated and are conceived after the model of universals with three qualifications. Firstly, the forms are of higher

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1 Ibid., p. 150

degree of reality. Secondly, we cannot have any knowledge, so to say, of the particulars, but only of generals. All knowledge, is knowledge through concepts. Thirdly, the forms are the sources of the particular. Platonic universe, consists of three stuffs: (1) The forms; (2) The featureless stuff, in which the forms are manifested; (3) The semi-real world of particulars, the results of this manifestation.

The following are the characteristics of the ideas. They are substances which are self caused, self-determined absolute and ultimate realities. They are universal. They are not things, but thought-realitties—objective ideas without a thinker. These are unities, as there is one idea for a class. They cannot change or perish. They give the essence of a thing. These are absolutely perfect and are beyond space and time. The ideas are rational. The world of ideas are the objects of reason, while the sense perception is busy with the sensible world.[1]

In the process of getting knowledge, the soul recollects only its knowledge of the past life, in the world of ideas. Intelligence (*Nous*) is given in the world soul, which proclaims itself in our own soul.

The particulars of the world of flux are always

[1] Stace—Hist. of Greek Phil. P. 186.

striving to reach the ideal of the form. The soul is striving to reach fuller knowledge, and the individual things for completed reality. The forms are always pulling the particulars. So, we know a thing, only when we see the part, as part of the whole system to which it belongs. This whole system, is a system of reals or ideas. He suggests some levels in that world of reals, in which the idea of the good, seems to rule as the highest. The idea of the good is the ultimate unity and explanation of all knowledge, and it is the source of all knowing and being. It is the principle of sufficient reason. It is the duty of the philosophers, to go beyond the shadows of real things, the shadows that an ordinary man sees within 'the cave of the world.' They have to see everything, in the light of the good, or otherwise in the light of divine purpose. These shadows are objects of mathematics and sciences. Knowledge of the highest and the truest must go beyond and move in the region of ideas, where the idea of the good, beauty and truth rules. He reverts to the saying of Protagoras, *Homo mensura*, with a sublime amendment. God, and not man, is the measure of all things, equating the good with God. Plato was a realist as also an idealist, in the modern sense of the term.

Aristotle (*B.C.* 384-322)

Aristotle criticised his master on an empirical basis. He opined that ideas cannot be found in the actual things of the world. So he called, the distinguishing structure of a thing its form, and the stuff of which it is made, its matter. The two are indissolubly united from the beginning. At a particular stage, form is the last determination of the thing, in virtue of which it has reached that stage. It is matter, in respect of the next phase of development. Now we come to Aristotle's theory of judgment. All propositions, which give us knowledge, are reducible into two factors. There is first, that about which something is affirmed or denied. Secondly, there is that which is affirmed or denied. The first is called the subject, and the second is the predicate. A thing, according to him, can be exhaustively analysed into two elements—its matter and its form. The form, is the sum of the predicates, and the matter is the subject of which the predicates are mentioned.

The end or *Prime-mover*, is attracting everything towards a goal. Contrary to Plato, he thought that ideas did not exist apart from the individuals. Aristotle thought that human mind, when it first comes in touch with the world system, is like a

Tabula rasa or clean slate. Human understanding is not of a paternal nature. It has no power to impart anything. It is of motherly nature. Mind of a child, has the receptive nature. It gradually acquires knowledge, by experience through the senses. When matter offers resistance to forms, we have mistakes.

Plotinus (*A. D.* 204-70)

Plotinus, the neoplatonist, spoke of intelligence as the first emanence from God. This again is divided into *Nous* or pure intelligence, and the intelligible world or subject and object, as we call it now.

According to him, ideas are divided into genus and species. We come to know first, the particulars, then their class or genus, and in the end, we come to know the world as a whole. Whatever is in the sensible world, is to be found in the intelligible world also.

Mediaeval Thinkers:

Augustine was of opinion that man can gather knowledge of the world about him, by experience and reasoning. There is a higher knowledge not got by this way of experience. This knowledge comes through faith and revelations. These truths may contradict the experienced knowledge, but these truths are of another region. Thus, truth for him, has twofold character. He thought, that genuine knowledge, is conceptual in nature, which is due to sensations. Aquinas thought that proper knowledge is conceptual, which we gather from sensations. External objects act on the soul, and are formed into concepts, by it. Universals are not outside our soul. There is another type of knowledge, the knowledge about God. This is got by intuition. John Scotus, subordinates the rational knowledge to that of the knowledge by revelation. These philosophers wanted to support the Church.

Modern Thinkers

Bacon (*1561-1626*)

Francis Bacon, the first of the scientific philo sophers, emphasised the inductive part of our reasoning. He gave five 'Idols' or false view points, which bar our right knowing (1) Idols of tribe, —they are errors inherent in our nature. (2) Idols of the market places,—these are tyrannies of the words. (3) Idols of theatre—are those errors that are of the system of thoughts. (4) Idols of caves—are personal prejudices. (5) Idols of the schools—are errors of blind rules.

Descartes (1596-1650)

Descartes, the pioneer in epistemological enquiry, began his work by an extensive doubt of every thing. There is one thing that he cannot doubt, it is the thinking self—I think, therefore I am—*Cogito Ergo Sum*. This makes mind more definite than matter. He further opined that sense knowledge is confused, so knowledge of external things are to be had by mind, and not by the senses. Ideas, including sense perceptions, are of three kinds, (1) Innate ideas (2) Foreign ideas (3) Invented ideas. It seems reasonable, that foreign ideas are imprinted on our mind by foreign bodies, otherwise how do they come; still it may be doubted that external things are really there. Only God's existence can prove this. Now God, who is good, gives a strong inclination to believe in external things, and hence things need must be true. His explanation of the knowledge of external things, is known as representationism.

The three features of a systematic knowledge are (1) Simplicity and certainty of data, (2) Strict proof in the connection between data and conclusion, (3) Complete survey. The process of knowledge is also three fold: (1) Simple data got by intuition, (2) A deductive process, by which from simple truths, we pass to more complex truths—a synthetic process and (3) By induction or enumeration, we come to an analysis of elementary factors[1]. By intuition, he means, 'Neither the fluctuating testimony of the senses nor the misleading judgment of a wrongly combining imagination.' It is the undoubted apprehension of a pure, attentive and reasoning mind.[2]

Spinoza (1632-1677)

The monistic philosophy of Spinoza, distinguishes the two concepts—substance or selfdependent being or God, and modal or dependent being. The self dependent being or reality, is the cause of derivatives. The concrete nature of God, expresses itself as infinite variety of attributes, and to humanity it is expressed as extension and consciousness—both are of one and the same reality. Knowledge is to present the whole object of knowledge, as a consistent whole, following from the supreme ground. He distinguishes between imagination, meaning sense perceptions and memory, and reason and intuition. From sense perception, we get obscure knowledge. When we come to reason, we come to know the common notion, which is the subject matter of science. It is more clear than the former. The final stage is that of intuition. Here, the individuals are conceived in their relationship to the finite ground, and the relation of the part to the whole, is readily realised.

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[1] N. K. Smith. Descartes' Phil. Writings—P. 10. 32.

[2] Ibid. P. 12.

There is an ascending order in knowledge, viz. —opinion, reason and intuition. Opinion is the lowest stage of knowledge, in which objects and events are apprehended without finding any connection between them. In reason, the next stratum of knowing, we find out the interconnecting link in them. In the final stage the intuitive knowledge, takes the cosmic view of the world-vision of seeing God in all and all in God. Perception or imagination, is concerned with images, while conceptions or understandings are concerned with connections and logic.

He, for the first time, gives the coherence theory of knowledge,—each known fact, is to be known as related to various other facts; knowledge is not the collection of facts, but the idea of the essence of reality, which manifests as particulars. There is no difference between truth and reality. Our knowledge, is to realise the essence of things, through the particulars. For him, reality is an interconnected system, an ultimate intuition.

Knowledge, according to Spinoza, is life. It enables us to take life as a systematic unity, inspite of its diversity; ideas or concepts are activities by which reality is apprehended; knowing and willing are not different.

Locke (1632-1704)

Locke is the pioneer of empirical theory of know ledge. Locke felt that epistemology is prior to all other enquiry. Knowledge, for him, is the perception of agreement or disagreement of two ideas.[1] Mind, in the beginning, is an empty cabinet. The ideas are given to us by sensation and reflection. Things produce in our mind, ideas of sensation, by impression, and these passive ideas are made complex by mind-operation. He distinguishes between primary and secondary qualities. The former are copies of the real properties of things, while the latter are not resemblances of actual things. Knowledge is a judgement of affirmation or denial and these are, either certain knowledge of perceptions or sense matters of opinion. Certain knowledge is either intuitive or simultaneously perceived or demonstrative. The latter are a chain of intuitions having an element of memory.[1]

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[1] Patrick Introduction to Philosophy—P. 352.

Locke has definitely shown, that things are nothing but combinations of primary and secondary qualities. Primary qualities of things, are those with which geometers and mathematicians have to work. They do not change. They are motion, solidity etc. Secondary qualities are those which undergo change or may vanish, such as, odour, colour etc. They do not belong to things. They are 'powers', which things possess, to produce effects in us. These qualities have a suppport which is called by Locke as *Substance*, which we cannot experience at all and which is featureless altogether. This is known as representationism, according to Locke. We do not know external things, but their copies, in our minds. The primary qualities impinge upon our sense organs to form ideas of things. The mind then projects the secondary qualities. The theory of representationism entails three factors—(1) The knowing mind; (2) The ideas known; (3) The external world of objects.

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[1] Radhakrishnan Hist. of Philo. (Eastern & Western)—P-227. Voll. II.

Leibniz (1646-1716)

Leibniz's theory of apperception or perception, is theory of knowledge. Apperception is the perception of eternal and necessary truths. It is clear and distinct knowledge. Human soul is a *Monad*, and all knowledge comes from within itself. It transforms itself and grows from within. It reveals itself. Knowledge includes both self-evident truths and truths of fact. Mind can never be without thought.

All truth, according to him, is really innate. Eternal and necessary truths are grounded on the law of contradiction (A cannot be both A and not-A) and contingent truths or truths of fact, are grounded on the law of sufficient reason, which means that there is sufficient reason, why something or some statement, is as it is and not otherwise.[1]

George Berkeley-(1685-1753)

External things, according to Berkeley, are the result of divine intelligence. A living active mind, is the centre and spring of the universe. His famous epithet *Esse est percipi* means, 'to be, is to be perceived'. For him, there is nothing existent except minds and their thoughts. He denies matter on the ground, that abstract ideas or class concepts are not true, for there is no reality outside, corresponding to these class ideas, nor are they in our minds. So, universal substance called matter, is not true. Only, particular sense content; is perceived; but the primary and secondary qualities are known through the sensations which vary and so are fictitious. Thus, his argument about physical things, is empirical. But his outlook is rational and intuitional, about spiritual world. We know our ownselves by intuition and other selves by reasoning. The order and sequence of our sensations require a supreme mind, for there is no other cause to explain them. The idea of external world, is mind-imprints, made by God and the idea of imagination, is our own make.

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[1] Latta Leibniz's—The Monadology etc.—P-121.

Mind is a unit of experience. He did not want to make mind and objects identical; all that he wanted to establish, is an idea of correlation; no mind no idea or object. There is a distinction between idea of imagination and memory, that arises from within our ownselves, and ideas of perception, that cannot have their origin from within us. Since there can be no outside cause, the cause of our sense experience must be a mind, which is the infinite mind. Objectively, the world of perception, has its own unity and identity, for it has as its cause, the infinite mind. Subjectively, we believe in the external nature and their independence, for they come to us in regular order and combination. Thus, there are the empirical and the apriori theories of knowledge, in Berkeley.

Hume (1711-1770)

All that we can know, according to Hume, are ideas, and not the material world. Mind is a stream of ideas. We receive impressions and we form them into ideas. Again, from the experience of these ideas we gather, that they bear relations, such as, cause and effect. We think in terms of ideas and relations; we can know nothing beyond these two types of perceptions, the impressions and ideas.

Immanuel Kant (1724-1804)

In his 'Critique of pure reason' Kant gives a critical analysis of knowledge. According to Kant, through intuition we are in immediate relation to objects. Objects are given to us by sensibility, and this alone gives us intuitions or thoughts, through the understanding, and from the understanding, we get that which gives concepts. The intuition, which is in relation to objects through sensation, is empirical and the undetermined object of an empirical intuition, is appearance.[1] The form of appearance, determines the manifold appearances, in an orderly way. These are not sensations, but are a-priori in mind. There are two pure representations, in which there is nothing of sensation, which may also be called pure intuition, and these are called time and space. These are studied by Kant, in his transcendental aesthetics.[2]

Kant makes a distinction between sensibility and understanding, in his critical method of knowledge. The knowledge that we derive, only by the help of sense organs, is the function of sensiblity. It is direct perception of sense object. Two things are primal in this. (1) It depends for any knowledge on something else i.e. the objects outside (2) An object is got, only by this method. But according to Kant, all knowledge is a process, in which both sensibility and understanding function together. Time and space, are two forms of sensibility. These forms of sensibility or appearance, are a-priori or prior to all our knowing. These two do not come from outside.

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[1] K. Smith. Kant's Critique etc. P. 41.
[2] Ibid P. 42 and Lindsay P. 67.

Understanding is the mind's power of producing representations from itself. Without sensibility, no object is given to us, and without understanding, no thought is possible. Knowledge arises only through the union of sensibility and understanding. To gather particulars, we require the help of the sense organs, and to get a knowledge of the universal, we seek the help of understanding, while sensibility takes the help of things outside. Understanding is self-sufficient.

By knowledge, Kant means empirical knowledge, which when organised in a definite way, becomes scientific knowledge. Now, the unrelated data of sensations become united and marshalled by twelve categories of understanding. These have four broad divisions. Thus, (A) qualitatively we have (1) Reality (2) Negation (3) Limitation. (B) In quantity, we have, (1) Unity, (2) Plurality, (3) Totality. (C) In relation, we have (1) Substance and inherence (2) Cause and effect (3) Community, meaning reciprocity between agent and patient, reciprocal or causation. (D) In modality, we have (1) Possibility or impossibility (2) Existence or nonexistence (3) Necessity or contingence.[1]

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[1] K. Smith. Kant's Critique etc.—P. 72.

These categories had a genesis in Aristotle, but Kant's statement seems better. The categories of quality and quantity, give the inherent state of matter, while the relation and modal categories give the relation of matter concerned. The former two are called by Kant, mathematical, while the latter two are dynamical.

Kant formulated four laws, as to how the categories can be applied to objects. These are nothing but judgements. These are (1) Axioms of intuition (2) Anticipation or perception. (3) Analogies of experience (4) Postulates of empirical thought. These are the basis of all our judgements and have transcendental reflection.

(1) First of all, we must accept the possibility of experience. Now, without sense experiences no experience is possible, and sense experience means experience in time and space, which again presupposes some extension. This is the 'axiom of intuition'. (2) Anticipation of perception means, the real, that is, an object of sensation has intensive magnitude, that is a degree. (3) Experience is possible only through the representation of a necessary connection of perception. These analogies of experience are rules of unity of experience. These are (I) Permanence of substance, (II) Succession in time, due to

causality and (III) Principle of co-existence due to law of reciprocity, or community. (4) That which agrees with formal conditions of experience, is possible, that which is bound up with material conditions of experience, is actual, and that which is determined according to the universal conditions of experience, is necessary.[1]

The empirical knowledge of things always comes through the forms of thought and of understanding. But this always refers to some object beyond. These are the things in themselves. The categories of understanding are concepts no doubt, but they are principles and ways of unifying the various sense objects. Their usage depends on our sensations. Though they are of no use about 'things in themselves' still they have transcendental significance. When we say, we know what are phenomenon only, we cannot but think of what is beyond it. The shadow of a thing makes us to think of the origin of the shadow. This is called by him noumenon. But it is unknown and unknowable. We cannot call this an object of knowledge, for there is no element of perception and understanding about it. The categories are the limiting concepts, and we can think that there may be some objects that lie beyond, and these limiting concepts give expansion to our mental atmosphere. So far as consciousness is concerned, there are four elements:—(i) The given data of senses (ii) The forms of perception, space and time (iii) The forms of thought—the categories, and (iv) The identity of self. The self or ego must be the same self, to which different parts of experiences are presented. And the ego must be conscious of its own identity.[1] The study of the inherent structure of mind, the innate laws of thought is transcendental philosophy. This is occupied with apriori concepts of objects. These are problems transcending the sense experience. Transcendental aesthetic deals with forms of perception, space and time and transcendental logic deals with the pure concepts of understanding or categories of thought.

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[1] K. Smith. Immanual Kant's etc. P. 176

J. G. Fichte (1762-1814):

For Fichte there is no reality beyond Ego. The absolute universal ego is God. This ego posits itself (thesis). Then it posits the unlimited non-ego (antithesis). And lastly, the ego posits itself as limited by the limited non-ego (synthesis). Its original nature, is free activity. It places itself as *Anstoss* or plane on which its own activity breaks. This ego becomes conscious through this shock. It begins to reflect. The ego is divided and the subject object division appears. God, the infinite will, manifests Himself in the individual ego and this individual has against him, the non-ego or things. To know and to exist, are the same for the ego. His philosophy is idealism. The first principle ot knowledge for him is this free, infinite spiritual activity, which can be discovered by reflection, abstruction or intuition.

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[1] Encyclopaedia. Bri. P. 269. Vol. 13, Ed. 14.

In practical philosophy this original activity makes itself felt in our conscience as well as in our natural instincts. The individual things in nature from the beginning are means or limits for the satisfaction of our higher or lower impulses. The world is practical from the first. Fichte's theory may be called antithetical method.[1]

Schelling (1775-1854):

The philosophy of Schelling, though it underwent several modifications, is nature philosophy. Nature with instinctive intelligence, is moving towards self-consciousness; nature is intelligent, for its laws are intelligible. Nature is invisible soul, and soul is invisible nature. The Absolute is the principle of identity. It is the principle of foundation of both nature and spirit. From this neutral basis both mind and matter appear.

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[1] Hoffding. History modern Phil. pp. 153-157.

For its absolute nature, no subject or object is possible. It is a perfect equilibrium state. Schelling's new departure, is three fold—(1) Objective conception of nature. (2) The thought of the identical indifferent absolute substratum of both nature and spirit. (3) The opposition of negative and positive. The philosophic cognition is reason and identity.

Schelling's philosophy in its developed stage is panthism, where the universe is a living organism that evolves, where the parts and the whole are equally important. Subject and object form and matter, the ideal and the real are not separable. It is identity in diversity. In knowledge the knower and the known are one. Man's view of the world is his free choice. The only way to prove freedom is to be free ourself. A free being knows what is freedom, and we understand freedom or the Absolute only by a free intellectual intuition.[1]

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[1] Thilly. Hist. of Phil. pp. 470-471.

The negative is rational philosophy, and the positive is the divine. But absolute identity cannot know itself, as this means, to be in the realm of finitude and individuality.[1]

His knowing the moving world, is knowing from inside, as they are in themselves and for themselves. This is done by knowing ourselves, while the science and common sense see only the static nature from outside. The creative artistic mind, is a creator like nature, and so can know how nature works. In the product of art, subject and object, the ideal and real, the form and matter fuse together. Aesthetic intuition is absolute knowing. Like the artist, philosopher must be able to perceive the harmony and identity in the universe. The ideal knowledge, is the knowledge of the Absolute, through intuition, in the form of self-consciousness of man, a free act of will, an artistic creation or a religious feeling.[2]

G. W. Hegel. (1770-1831):

Hegelian philosophy is scientific or systematic knowledge and his reality, is reality, in and for self-consciousness or Mind. Thought, and reality are identical. The thought relations, by which we can understand reality, are objective in nature. Our finite subjective activities are such, that in and through them, the reality expresses itself.

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[1] Radhakrishnan. Hist. of Indian Phil. Vol. II P-267. Ency. Brit. P. 64 Vol. 20 Ed. 14.

[2] Thilly. Hist. of Phil. P. 471.

The universals depend on Mind or self consciousness, as their ultimate cause. They express the Absolute Mind, and are members of a system. The categories, the universals which are Being, essence, cause etc, when taken in isolation, seem to be contradictory in nature, but they pass on to their opposites in a dialectic way and then both are transcended in a category of which these two are ingredients. This again, is transcended in a similar logical way. This process goes ever widening, until the entire field of knowledge is encompassed to show an organic unity of thought. In his opinion, every detail can be deduced from the ultimate Absolute. Thus, the absolute truth and existence, are identical.

Knowledge has a dialectic movement, a triadic development. It begins with sense perception with objective awareness. It becomes subjective when we critically see it. In the last stage, it comes to self-knowledge, where subject object relation is lost. It is the highest form of knowledge, since, for the Absolute, there is nothing to know but its own self.

For him, human mind and nature are both identical in their process which is dialectic and evolutional. Thought is a dynamic process, to see things in their whole nature. Now, as nature and mind both obey this law of rationality and logical process, the whole of reality is logical and evolutional.

Our individual knowledge, is knowledge of phenomenal world. But Hegel speaks of thought and reality, as identical. Reality, for him, is timeless, for succession of categories, is not temporal development. Reality is also nonspatial, for it brings about multiplicity, for and out of itself. He is a relativist, inasmuch as human knowledge is a stage, an imperfect process to-wards the absolute knowledge.

T. H. Green (1836-1882):

Green's metaphysics of knowledge is opposed to atomism and he transcends this atomism by his theory of relations. These relations such as causality, substance, etc. make possible any knowledge. Reality of things depend on the manyfold of relations of the things. The relations bind the things. Relations again takes for granted the mind's relating function. Now this whole correlated nature is spirit or eternal consciousness as he calls it. This gives unity to the many whether the fleeting perceptions, or thoughts, or to things of the whole world system.[1]

Bradley—(1846-1924):

Knowledge, for Bradley, is ambiguous. To realise the existence of Absolute, is for our finite capacity, not possible. That some knowledge is absolute, and others finite, is a difference not to be strictly taken into account, still it needs be upheld.[2] Taking the general character of reality, it is, in the opinion of Bradley, present in knowledge. When a body of knowledge becomes stronger, more systematic and more fully organised, any conflicting idea becomes more impossible.[3]

Bradley's world view, consists of three levels. The lowest level is the realm of immediate feeling experience. It is not in any relation with any other feeling, and is undivided and undifferentiated feeling of wholeness. The next level is the realm of thought, the realm of relations of appearances. Third level is the level of reality, the Absolute.

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1 Metz. Hundred years etc. Pp. 273.
2 Bradley—App. & Real. P. 483.
3 Ibid P. 481.

Bosanquet (1848-1923):

Both for Bradley and Bosanquet, judgement, and not the concept, is the fundamental form of our thinking. It is an organic whole, in nature and it points to something real beyond itself. Our knowledge is always partial but we always presuppose the totality of things.

He gives a systematic view of inference, instead of its linear view i.e. linking a predicate with a subject; he gives a system, in which parts are interwoven into a systematic whole. This whole, is before the parts, and directs and penetrates them. There is a degree in knowledge. The fuller the connections of the parts with the whole, the higher the knowledge.

In reading the connection of the parts to the whole we take the help of intuition or looking into the innermost essence of things.[1]

Bergson (1859-1941):

According to Bergson, the brain is not consciousness, it is simply the organ of consciousness, the point at which the consciousness enters the matter. It is a result of evolutionary process of consciousness.

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[1] Metz. Hundred years etc. P. 350.

Consciousness is identical with reality. According to him, the true instrument of knowledge, is intuition. It is instinct, conscious of itself—it is instinct that has been disinterested, is self-conscious and has enlarged itself infinitely. By intuition we get the knowledge of reality, which is vital. All belief arrived at otherwise, is misleading. Intellect introduces stops, in the ceaseless flow of life or *Elan Vital*. Thus intellect takes the flow of motion, and cuts it up into moments and points. It takes the life surge, as dead matter. So 'duration' or eternal time also, is broken into moments. Thus intellect gives a wrong notion of reality. It cannot penetrate into reality, nor it has a forward surge. Intellect makes a cut accross the living surge which is *Elan Vital* and carves out the matter. Intellect and matter are relative to each other. They are contained by *Elan Vital*.

Intuitive knowledge, regards the universe as a whole which is brought together by combination of parts, but it is something over and above the sum-total of parts. It is through sympathy, that is, intuition, we can enter the *Elan Vital*, just as an artist enters through sympathy, into the life of a painting.[1]

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[1] Joad. Guide to Phil. P-540.

He says, consciousness of a living being, is the arithmetical difference between potential and real activity. According to him, instinct and intelligence are two quite different aspects of knowledge. In instinct, there are grades of consciousness. Consciousness is a measuring means between representation and action, between potentiality and reality of action.

Both instinct and intelligence, have knowledge, but in instinct, it is action and unconscious, while in intelligence, it is thought and consciousness. But this difference is difference of degree.

As regards the matter and form of knowledge, matter is given by our elementary perspective faculty, while form is the sum total of the relations of those matters, with a view to make a systematic knowledge.

Innate intelligence means, knowledge of a form, while instinct is the knowledge of matter. Intellect, for him, is empty and external, having the advantage of an infinite capacity to contain objects. Knowledge and action are the two aspects of one and the same faculty. Instinct is innate knowledge, for it is the faculty to use a natural and organised instrument. Intelligence, is mechanical and instinct is organic.[1]

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[1] Creative evolution, PP. 142-187.

Instinctive work, is work with natural organs, while intelligent work, is work with dead matter. Instinct knows life, while intellect knows dead matter only. Intuition has more affinity with instinct than with intellect. Now intuition is more conscious and deals more with knowledge than with action. But intellect is a helping hand to instinct, to make it intuition. It also helps intuition, by giving us an interrelated knowledge of dead matter, to go deep into reality, which is eternal flux, the *Elan Vital.*[1]

Joachim: (*1868*).

For Joachim, every judgement belongs to a general structure of meaning. Its meaning depends on that background. This background, is the entire knowledge or being. Our finite knowledge, is always about something other than itself.[2]

E. Caird: (*1835-1908*)

According to Caird, thought cannot proceed on the way of truth, without the idea of identity in difference. It is the organic unity, it is the spiritual immanent principle. It is the Absolute. It is according to him, the living dynamic spirit.[1]

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[1] M. Datta Chief currents etc. Ch. V.

[2] Metz. Hundred years etc. P. 360,

S. Alexander: (*1859-1938*).

Knowledge is a relation between two entities, between a consciousness and a thing. It is a relation of togetherness or compresence. In this relation object is independent of consciousness, but consciousness depends often upon the object as its principal material. This theory is extremely realistic. Again perceptual image, is not in the consciousness, but is the thing itself. The real object is the sum total of all the perspectives. Alexander's theory, is just the opposite of Barkeley's '*Esse Est Percipi*'. He speaks of ideas as equal to things. There can be no idea that does not belong to things.[2]

As regards the mode of knowing, Alexander gives us, that ego enjoys its own psychic act, and it contemplates the physical entities.

J. Laird: (*1887*).

Laird thinks that, in perception, we get not only bare sense data, but also important signs with some import that go beyond. So, he makes distinction between data that are significant called signs, and data that produce mere sensation called facts. In reality, we observe these two together, and not in isolation; what we get in actuality, is sign-fact, having significance, that goes beyond. This complex sign-fact has meaning, extension, duration, colour and tone. In philosophy, Laird is of opinion, that common sense view should be taken. In epistemological enquiry, Laird considers, belief and opinion have a share. Knowledge, belief and opinion cover our whole field of activity. Belief, is for him, a psychological certainty and knowledge, is logically certain. Belief, opinion and probability also are subjects of reason.[1]

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[1] Metz. Hundred years etc. P. 289.

[2] Ibid P. 630.

Norman Kemp Smith (1872)

Sense perception, for N. Smith, is of primary interest. For him, sensa are events, which have physical, psychological, and possibly psychic factors as conditions. They belong to one percipient but have more elements of physical existence than psychological ones.

There are three subjective factors for knowledge. (1) Sensing (2) Categorical thinking, and (3) Intuiting; and three material factors, (1) Sensa (2) Categorical relations, and (3) Space-time.

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[1] Metz. Hundred years etc. P. 676.

In his opinion, knowledge cannot be equal to the infinite variety and complexity of reality and even the small portion that we have of the reality, is to a great extent lost in the process of entering into our consciousness. Mind takes a selective process and it is guided by a biological necessity.[1]

Broad-(1887):

Broad gives three factors, in the realm of knowledge (1) The sensations or mental acts called, states of mind. (2) Sensa (3) Physical objects. The sensa are partly dependent on the body position which senses, and partly on the mental condition.

On the relation of sensa with the objects outside, we have got two possible propositions. (1) Sensa inhere in space-time, or (2) There is particular sensory space-time in which they have their existence.

In describing the analysis of perceptions, he gives (1) The sensum, say, a patch of colour, a flash, a noise; it is an event. (2) Then the perceptual act called situation (noise being sensed) and over and above this there is (3) The sensory field.

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[1] Metz. Hundred years etc. P. 685.

The perceptual process is transcendental in three ways (1) Spatial, meaning that only a part of the space of the event is seen. (2) Temporal, only one or a few moments apprehended, and (3) Qualitative, only a few of the qualities are apprehended.

Every sensum and every physical object, is an event; only the former is shorter, and the latter a longer event.[1]

Joad-(1891-1953):

The epistemology of Joad is on new realistic ideas. He distinguishes three different elements. (1) Sense-data (2) Physical objects (3) Scientific objects. Physical objects are the commonsense material objects. The physical objects are apprehended by means of sense-data. These sense-data exist as the material, which makes up the physical world. The act of apprehension can be directed upon them only. We do not perceive physical objects through the senses, but we apprehend them through thinking. Scientific objects are the results of abstractions. By scientific thinking, the secondary qualities and also the qualities that stick to the sense-data of the physical world are cancelled.[1]

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[1] Metz. Hundred years etc. P. 669ff.

For him, there are three independent basic principles of the beings of the world; these are matter, life and values. On the brute matter the flow of life breaks with eternal unrest, and the values are changeless, enduring and transcendent realities.[2]

Bertrand Russell: (1873):

Knowing, as he views it, is a characteristic which may be displayed in our reactions, to our environment or in other words, the circumstances and events around us are always reaching our sense organs, and knowledge is our reaction to these stimuli. According to Russell, our knowledge of external objects, is but inferential. He analyses a process of perception that there is an event outside. It reaches the sense organs, where it is changed into another physical process in the optic nerves which in turn, is followed by an effect in the brain, a physical movement, resulting in a psychological experience of seeing a thing. All that we can say about this whole process with certainty, is that our brain is stimulated in a particular way. Physicists have come to regard the world of matter, as composed of atoms. These atoms are not known directly so long as they do not liberate or absorb energy. Modern physics therefore, reduces matter to a set of events which proceed outward from a centre. Events are not known in their intrinsic nature. They are known only in regard to their mathematical characteristics. He thinks that mind and brain and matter are not three different things. There is only one class of percepts, in themselves they are neither mental nor physical but may be treated as either, according to the context in which they are taken. Thus we come to Russell's metaphysical view, called 'Neutral particulars'. It is the fundamental homogeneous stuff of the universe which appears as mind, when arranged inside the brain, and as sensations or events, when arranged outside us. An object according to him, is the sumtotal of the appearances presented by it at all places at a given moment, and a mind is the sumtotal of all appearances presented at a place at which at a given moment there are brain and sense organs and nerves forming a part of the intervening medium. This, according to him, is in line with the implication of modern physical and psychological truths.

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[1] Metz. Hundred years of Bri. Phil. P. 390.
[2] Ibid. P. 690.

According to him, our language has put some restraints on our knowledge. It can express some physical events but it cannot adequately express our sensations, mental impressions etc.

Jeans: (1877):

Indeterminacy of knowledge:—

All knowledge, says Jeans, is due to impact of photons of energy either on our sense organs or on our physical instruments.[1]

A photon gives a backward kick to the atom which it leaves. So the knowledge we get, is the knowledge of an old universe which has passed away[2]. This is the case with all photons of any momentum rising from zero upwards.

M. Urban:

According to Marshal Urban, the theory of knowledge is included in the theory of value. The problem of knowledge, according to Marshall Urban, is properly understood in this way. Our urge for knowledge takes for granted, that truth is valuable to us as the supreme good of life.[3]

[1] The New background of Science. P. 235.

[2] Ibid. P. 236.

[3] Beyond realism and Idealism. P. 16.

There is a relativity of mind. It means relevance of mind to senses and categories or relevance to purpose or value. Realisim thinks that the content of knowledge has a condition independent of mind. It is independent in the sense that our thoughts and desires make no difference to facts and our knowing does not alter it. But objects are dependent on mind in the sense that truth is an ideal and not a thing. Transcendence of knower and the object known is both necessary and minimum for all knowledge. Thus minimum of both realism and idealism is necessary for a genuine theory of knowledge.[1]

There is another thing that is required for the conciliation of idealistic and realistic views to be included in a real theory of knowledge. This is that both of them require an intelligibility for communication. This is the transcendental epistemology which contains both of the theories.

Philosophia Perennis is a synthesis of the cognitive values of both realism and idealism and contains the elements of both.[2] Its ultimate demand of rationality and intelligibility does not change.

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1 Ibid. P. 140—141.

2 Ibid. P, 241

It is life movement and has reinterpretation but within bounds of presupposition.[1]

In his opinion, the perennial philosophy, is above opposition of realism and idealism epistemologically saying. The perennial philosophy transcends both of them and it axiomatically posits three things—there is an antecedent being or substance and this we can know in an ever growing way. Again this being and value are inseparable and value consists in truth, beauty and goodness.[2]

W. James: *(1842-1910)*

W. James differs from those of the absolute idealists. He believes in an absolute which transcends the duality of subject and object for there is no such duality in our experience. He is empirical in epistemological theory. He speaks of sense experience as the only source of knowledge and sensibles as the only realities known. He denies consciousness as a 'Thing'. There is only one primal staff called pure experience out of which this world evolves. Knowing is relation between two portions of this experience. Knowledge for James, is not a finished product but a concrete dynamic process that is made.

[1] Ibid. P. 261 F.

[2] Ibid. P. 255.

He gives five characteristics of thought. (1) It is personal (2) It is changing (3) It is continuous (4) It is the function of knowing and has its objects as real (5) It has a selective process from among the objects of knowledge.

Pragmatic knowledge is anti-intellectual. It is not meant for revelation of reality but is for some practical plan of action. This theory has nothing to do with reality that is outside our experience. He has no general stuff of experience but a multiple stuff as many as the natures of experience. It is mosaic philosophy and not monistic.

Pragmatic epistemology is not a copy of reality but is purposive in anticipation of future experience.[1]

Rationalism takes cognisance of universal and makes wholes prior to parts. But empiricism takes parts first. In his opinion, experience is a term in which perception, conception, feeling of activity, anticipation, expectation, fear, doubt and all moral religion and aesthetic feeling, indeed all feeling that have practical consequence, are included. Consciousness for him, is a nonentity. But thought performs the function of knowing.

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[1] Datta. Chief currents of. P. 179.

He terms this as radical empiricism, and the all inclusive stuff, pure experience. Matter like mind, is a construction out of mental experience. The difference between the subject and object is a pragmatic one. The one is called object when it produces some effect, as an imagined fire and a real fire differs in that the latter can burn a thing. Knowledge is conceived as a plan or preparation for action subordinating intellect to will. An idea is what it does. It is an instrument; it brings us to the neighbourhood of an object, enables us to deal with it. The ideas serve as substitutes when we can have no direct knowledge of objects. Knowing is of two kinds—knowing as verified and that in transit. In our experience he says, there is both continuity and discontinuity. It is continuous as they belong to the same stream of consciousness. It is discontinuous when we pass from a thing lived to a thing conceived, from one perceived to one non-perceived. Our experience is of the particular. Ideas which are parts of our experience become true only so far as they are helpful in getting a satisfying relation with other parts of experiences. Thus pragmatic empiricism regards parts and particulars as primary and the whole is of the secondary nature. Every bit of experience is composed of parts. Pragmatism sides with pluralism. James speaks of his theory of Meliorism. The world is neither good nor bad. Evil is necessary, as good also for the world. We with our creative free will, can bring salvation to the world.[1]

J. Dewey: (1859):

John Dewey developed the biological nature of knowledge. He calls it experimental empiricism Experiment gives everything. Knowing according to him, is going forward by acting. He applies dynamism to his theory of learning by saying 'learning by doing.' His opinion is that in observation and perception there is an active but subdued search for possible consequences of our actions. Thus knowledge, as biologically viewed, is an instrument for successful adjustment of life to the environment. It is thus always tentative and provisional. Thoughts are potential or actual planning for our actions. His theory shows that both subject and object evolve out of our experiment with our environment. Pragmatic knowledge is active and anticipates the future.

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1 Quoted by Radhakrishnan—History of phil. P. 340, Pragmatism. P. 58. Vol. II.

Knowledge for its own sake is no knowledge at all. Truth, according to him, is not eternal or absolute but relative and there is no fixed structure of our thoughts. For Dewey, truth is warranted assertability. An idea of knowledge can be given in two words—instrumentalism and experimentalism for successful action and experiment.

Instrumentalism, emergent neutralism or radical naturalism, these are the various names that can be given to Dewey's philosophy. According to him, reality is not static, it is a process, a co-related system of events. There are definite stages in the process of nature in certain definite emergence, the appearance of which was not anticipated in the preceding phenomena. Living beings are characterised by needs, effort, demand and satisfaction in biological sense. For these plants and lower animals have sensitivity giving them selective and discriminative responses. This sensibility becomes feeling when more complex character is reached and feeling leads on to an addition of mind property, when living creatures use tools, specially language, the tool of tools, for communication and consolidation of meanings. Thinking comes to us as a biological necessity, 'Coming after something, out of something and for the sake of something.' We think only when we struggle against maladjusted environments. He differs however from Watsonian behaviourism.[1]

W. Savery, in his criticism of Dewey, enumerates his contribution. First of all he has included in his pragmatic theory. (1) Indirect verification. Past events left effects that are present and that will continue in the future. (2) Neutralism—A neutral position between matter and mind relation is taken. Both have functional character only. Mind and matter are but different characters of natural event. (3) Perspective realism—There are three things to be noted in this aspect of his philosophy. He makes a distinction between a physical cause and the perspective effects. Certain molecular arrangements, which we empirically call the human organism, cause various phenomena to appear. Secondly the empirical thing is the series of perspectives. Lastly the place of perspective is an interaction field. In the case of bent stick partly under water, the perspective field is a wide field, the optic apparatus may be one focus, the place where light impinges on the refracting thing may be another focus. This is given in his materialistic theory of sense perception.

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[1] Radhakrishnan. Hist. of Phil. Vol. II P.P. 345.

(4) Concatinism: Connection of one thing with every thing else is given by Dewey but nothing of overlapping events as given by James. (5) Tychism-indeterminism to some extent is found in his philosophy. (6) Naturalism: He accepts realism and disbelieves idealism and positivism. His was emergent naturalism or radical naturalism.[1]

Whitehead: (1861-1947)

Whitehead's philosophy of organism took its origin in the modern age of subatomic physics. He gives up the static or semistatic conception of the universe for a dynamic one. According to him, time and space are relative and interdependent. There are interrelations among processes or activities to which all objects are ultimately reduced; objects are bits of process. There are as many space-times as there are angles of vision. He is opposed to epistemological dualism of nature—nature experienced and nature in reality are not two. There is but one nature of perceptual knowledge; knowledge according to him is ultimate. There can be no why of knowledge, but only the what of knowledge. The bifurcation of nature into subject and object as also into the apparent and real is arbitrary. Mental operations do not involve consciousaness. Whitehead speaks of knowledge as issuing out of interaction of one part of reality with the rest. For him, consciousness is the highest phase that mind reaches at times. Consciousness presupposes experience and forms only a fraction of our experience. His idea is of a continuous process all through whether it be living or non-living, so that the microcosmic universe can be taken as a more coherent whole. The energy which physics takes as the ultimate constituent of the universe, is for him the emotional intensity entertained in life. For him, the world is a process and not a static picture or substance and this is a creative advance. The process is never from behind. The experiences behind which we cannot go, are the smallest bits of processes which in Whitehead's opinion, are actual occasions or actual entities or sometimes as drops of experience or sensible objects. A perceptual object, like a table, is but a society of many actual entities. A smallest part of it experienced in a smallest part of time gives an atomic entity or component of a table called actual entity. The atomic entities are the ultimate entities that we experience. One actual entity becomes and perishes yielding place to another. Its life is one moment or occasion of experience. An event for him, is an interrelated series of actual entities as experienced by continued existence of a molecule for a few moments. A physical object is a more complex organisation of actual entities. The causal factor in the production of the world is 'Creativity.' But the process of the present world evolves out of the past events that were created. All actual entities are interested in the creative process differing only in degree of their share in this participation. Creativity is always free to some extent and is always novel in its process. According to Whitehead, concresence is the production of entities *Denove* by new integration of the various elements of existence in the world. There are certain eternal objects or potentials. The creative factor of God has a choice in creating a particular entity among some possible forms of synthesis. These are called potentials or eternal objects, like forms of Plato. These eternal objects are of two kinds—the objective or the sense data and the subjective, such as an emotion, a pleasure or pain. The term 'ingression' as Whitehead puts it, 'refers to the particular mode in which the potentiality of an actual object is realised in a particular entity.'[1]

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[1] Schilpp. The philosophy of Dewey. P. 481,

The creativity which is within us, arranges the experiences of sense objects into definite forms of

[1] Whitehead. Process and Reality. P. 31.

experience. 'Each actual entity is conceived as an act of experience arising out of data.' 'It is a process of feeling the many data so as to absorb them into the unity of one individual satisfaction.'[1] It is the satisfaction of the innate urge of creation that brings into existence an actual entity. It is the value, the purpose of creation. There is an objective immortality of actual entities inasmuch as they are potential factors in the production of succeeding entities.

'Each process' says he 'of appropriation of a particular element is termed a prehension.' Prehension of actual existing entities is called physical prehension and that of eternal objects is called conceptual prehension. Though all the entities exert some influence on the subjective element, the acceptance of relevant prehension is called positive, while the elimination of the irrelevant is called the negative prehension. It is a negative relation. It is negative perception or taking account of each other. A thing means its various degrees of prehension plus real internal constitution. The forms in which the experiences of subjects are enjoyed are called by Whitehead the subjective forms. The directing tendency which governs the subjective form is called the subjective aim. This aim determines the degree of emphasis of prehensions. Feeling in its primitive aspect, is unconscious, only higher grades of feelings are conscious. Consciousness originates in a struggle with contrasted character of data presented for unification in an entity. Thus we see feeling and experience are used by him almost equivocally.[1]

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[1] Process and Reality. P. 61. 69.

Sree Ramakrishna:

According to the Seer of Dakshineswar, knowledge in its real sense, is to know 'One' and to know many is ignorance. In method, Sree Ramakrishna sponsored dynamic intuitional instrumentalism. He was dynamic inasmuch as he wanted a forceful quest for knowledge, and no passive method. He - even fasted for days to know the real truth. This method was experimental; this experiment is not to be made by an ordinary intellect, but by an intellect freed from selfishness and animal nature. This pure intellect is equated with intuition. The gulf between intellect and intuition, between scientific method and method of intuition, made by Bergson, and others, was bridged. Again his method was experimental and scientific in nature. He experimented with the higher values of life, to prove their worth. Instrumentalism has a physical aspect, as Dewey says, which he applied in his methods. He bridged the gulf between the phenomenal and noumenal world; he opined that we can know the noumenal truth by this intuition which is pure intellect. This is an improvement upon Kant. His view is instrumental or pragmatic in this sense, he wanted a knowledge of God and then to use it. He says,—To know milk is one thing, and to use it for nourishment is something different.

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[1] Datta. Chief Currents of Phil. P. 457. Joad. Guide to Phil. P. 557.

Swami Abhedananda:

According to Swami Abhedananda, the representative of Ramakrishna-Vivekananda School of thought, our individual body is composed of minute cells and each cell has its individuality. Each cell in our body has mind, its memory, a little consciousness and myriads of such cells make-up our self-consciousness and our mind. We are like these minute cells in the cosmic body of the Lord. Of course there are different states of consciousness, and different planes; there are different names, such as, subconscious, conscious, superconscious and God-conscious. All these are different names for one consciousness which is known as self-consciousness.

Subconscious plane is larger than the ordinary conscious plane. It contains the germs of the powers infinitely greater than the mind which is working on the conscious plane. There are normal and abnormal consciousness. Consciousness is a kind of knowledge which gives the foundation of all our knowing states.

Swami Abhedananda, in the light of Vedanta, goes beyond the modern theory of evolution. He opines—'It (Vedanta) says there is nothing in the end which was not also in the beginnig. It is a law which governs the process of evolution as also the law of causation…… If we admit of this grand truth of nature, it will not be difficult to explain by the law of evolution, the gradual manifestation of the higher nature of man.'[1]

In explaining the source of all our knowledge he says—'The soul in each individual, is a centre of that circle whose circumference is nowhere but whose centre is everywhere. This circle is called the universal spirit. It is the source of infinite

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1 Swami Abhedananda. Reincarnation. PP. 55-56.

wisdom, of all knowledge, all truth. It is the real background of each apparent individual.'[1]

He draws a difference between consciousness and knowledge. Consciousness, he says, is knowledge of primary kind. It is not the knowledge of particulars.[2] Where we want to know particular things, we have to reason. Knowledge according to him, comes by comparison which is an act of reasoning. Consciousness establishes instantaneous relationship between the subject and object. He speaks of intuition and intellect as the two poles of mind.[3]

According to Swamiji, the different states of consciousness,—the feelings, sensations, percepts, concepts, and ideas that are changing every minute are held together by our self to make them a complete whole. This is the source of our consciousness in which subject and object of knowledge are related.[4] The Absolute is like the common trunk, which is all knowledge and all intelligence.[5] The leaves are like different personalities, the sap may be a greater race individuality, and race might be like one branch; but all these have developed from one trunk. According to him, our existence is inseparable from our knowledge.[1]

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[1] Swami Abhedananda. Spiritual Unfoldment. PP. 60-61.

[2] Ibid PP. 34-35.

[3] Ibid PP. 94-95.

[4] Swami Abhedananda-Our relation to the Absolute P. 134.

[5] Ibid P. 140.

So long as we have the 'I'-hood and inasmuch as God has implanted the germ of knowledge in us, by His thought about knowledge in the beginning, man cannot but have a thirst for knowledge. But for each of our relative knowledge, if we stick to Him and pray to Him, each step of knowledge would be a step towards that final knowledge, and would end in ourselves being lost in that ocean of knowledge. The beginning and end of knowledge will meet and merge.

Knowledge is love. For love, He has manifested Himself as many and has made Himself an object of knowledge to His ownself. Again through love He recognises Himself. The cognisance of His ownself, either in many or in one, is knowledge. Thus to love is to know, love fulfills knowledge.

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[1] Ibid P. 156.

Western Epistemology in General:

Now we come to a general survey of the medieval European Epistemology. We have to deal with the means and conditions of knowledge, what their limits are, and how they are acquired.

Methods of Philosophy:

Dogmatism:

In this theory, there is no scope for reasons, in the attainment of knowledge. The supporters of this view assume premises without sufficient enquiry, and draw deductions from them. These are innate ideas (Plato, Descartes) which we get from the creator—they correspond to reality. Another class believed in some axioms of our knowledge. The mind is so made by the creator as to believe in the ideas instinctively and as such they are absolutely true (Descartes, Reid). This is called Dogmatic rationalism. Others are of opinion (Locke) that our mind is like a clean slate, *Tabula rasa*, at birth, and all knowledge is imprinted on it, by our experience. This is called Dogmatic Empiricism.

Empiricism

Next comes empirical philosophy, which distinguishes two aspects of things, things as they appear in the phenomenal world, and things in reality.

The sensible things of the world, which are sensed by us, are called phenomena. According to this theory, even the metaphysical realities that lie beyond the phenomenal world, are known by our experience. All moral principles, the fundamental categories, axiomatic truths, indeed everything we want to know, are known by experience alone. (Hobbes, Bacon and Locke).

Intuitionism :

Reid's common sense intuitionism, is almost like empiricism; only it differs in this, that things as they appear to experience, are real. It is a belief which is given by our creator and as such cannot but be true. Hume one of the later empiricists, opined in his 'Treaties on human nature,' that experience can receive and store-up sensations, and can do nothing else. We cannot know anything about realities lying beyond experience, such as, Soul and God. A thing is nothing but a bundle of sensations; we can reason from experiences in the past to experiences in the future. This is known as sensationism, and is also called associationism inasmuch as, there can be no necessary or universal truth. Everyman is a measure to himself, or in other words, it leads to relativism of knowledge. Again we cannot know anything beyond our sense experience i. e. we can know nothing of ulterior realities, such as, God, Soul and such other conceptions and realities. Comte and Spencer are the advocates of this theory.

Subjective Idealism, Mentalism or Solipsism.

Locke has definitely shown, that things are nothing but combinations of primary and secondary qualities. Primary qualities of things are those with which geometers and mathematicians have to work. These do not change. These are motion, solidity etc. Secondary qualities are those, which undergo change or may vanish, such as, odour, colour etc. They do not belong to things. These are 'Powers' which things possess, to produce effects in us. These qualities have a support which is called by Locke as 'substance', which we cannot experience at all, and which is featureless altogether. This is known as representationism by Locke. We know not external things, but their copies, in our minds. The primary qualities impinge upon our sense organs to produce our ideas of things. The mind then projects the secondary qualities. The theory of representationism entails three factors—(1) the knowing mind (2) the ideas known (3) the external world of objects.

Berkeley criticised Locke, saying, if we cannot really know the external world how we can know whether our ideas agree with it or not. So we have no ground to suppose the external reality, nor the substance-myth; all the bodies that compose the mighty frame of the world have no substance without a mind; their existence depends on their being perceived *Esse est percipi.* Another conclusion that he comes to, is that the ideas that constitute our knowledge are ideas of sensible qualities of things. He distinguishes between ideas and imaginations. Ideas are in God's mind which He places into ours. Imagination may be discarded at will, but the ideas continue even though we do not have them. Thus the external world exists in God's mind though we may not experience it.

Rationalism :

Now we come to Rationalism. Some philosophers like Plato, Leibniz thought reason to be the only source of knowledge but Kant showed that experience can give us nothing of meaning unless interpreted by reason. It has been observed that the lower animals have no knowledge in the higher sense but they can experience, for this they cannot think rationally. Knowledge does not mean mere accumulation of sensations but arranging them and interpreting them according to and for our needs. Reason can go beyond experience and can conjecture about that reality also, which experiences. This view is also called apriori as it postulates some elements of knowledge as prior to and not derived from experience; it is called metaphysical as it seeks to understand things behind the phenomena, and it is called transcendental because it tries to understand conditions that lie beyond, on which all our knowledge depends. It is called speculative because it tries to look round and take a comprehensive idea of the world. It is called the rational method inasmuch as reason is given the supreme position in our investigations. The world conceived in this way is only a world of thought and not the real world as it is. In a sense all epistemological enquiries involve a critical system but the critical method was used by Kant in his famous work 'The critique of pure reason' for the first time in philosophical analysis. He thought that the true method of philosophy is a combination of empiricism and rationalism. According to him in the field of knowledge both sensation and reason, empiricism and rationalism are necessary. The world we conceive is only a world of thought. It is conceived according to some categories and forms of sensibility.

These forms of sensibility are two—time and space, and the categories of understanding, are twelve in number. The world known to us is the symbolic world. The real world—the noumenon is behind this. This world is called by Kant the 'things in themselves.' This method is called phenomenalistic or transcendental idealism for it takes for granted the world of reality which transcends experience and which imposes certain impressions on the mind through the sense organs. Our ideas are only signs and symbols of something unknowable. Thus he founded an agnostic school of thought, which is also pluralistic. Rationalism is thus of two kinds,—pure rationalism and critical theory of Kant.

From this critical philosophy of Kant some returned to the extreme sceptical position of Hume emphasising the difference between thought and reality (Post-Kantian School) and others, tried to bridge the gulf by establishing a unity between the two.

Dialectic Method:

After the critical philosophy of Kant, comes the dialectic method which means the art of discussion by question. This dialectic method is of two kinds

(1) Negative dialectic—this method of refutation is an indirect proof. By disproving a proposition we prove its contradictory. It is called Socratic method as it was first used by him to contest the sophists (2) the positive synthetic or constructive dialectic is used by Hegel in his science of logic. In this method we first posit something, which is called by Hegel a thesis. But this presupposes a contradiction in thought by the law of relativity. We understand it only as contrast to something else, an antithesis. But our mind cannot rest contented unless we find out a higher unity—a synthesis. Individual things are merged by this dialectic process into one homogeneous thing. Matter finds an antithesis called mind. These two are synthesised into something which comprehends both of them and this is called by Hegel Absolute. This is not only the general process of human thought but also the process of the world of evolution. Evolution takes place through the process of homogeneity, differentiation and integration. The pure Being has become the world, first positing its existence or being, then denying its own existence 'not being.' Then by a synthesis of its existence and non-existence, it comes to the world of becoming. Indeed Hegel thinks that our rational thinking is nothing but the ration-

ality of the Absolute, for the Absolute has become this world of phenomena.

The extreme form of Solipsism cannot give a satisfactory reason for the external world. According to this theory, the ultimate reality is a mental being which realises itself evolving the finite things and finite minds. This theory explains knowledge more adequately than the foregoing ones. His theory is a synthesis of the two separate schools of thought, viz. the English empiricists like Locke, Berkeley, Hume and the continental rationalists like Descartes, Leibniz and Spinoza. Hegel refutes these famous theories of his predecessors. Reality is not necessarily featureless or devoid of properties as was asserted by Spinoza and others and it is not necessarily unknowable as postulated by Kant. A featureless reality is neither in space nor in time, it is not organic, nor is it inorganic, it has no consciousness or unconsciousness, nor it is matter or spirit; it really comes to nothing. Kant postulated unknowable reality or noumena to explain the phenomenal world. But this is not necessary if we can dismiss the unknowable myth by a better explanation. Thus he comes to postulate the reality as the Absolute. In the world it expresses itself as principle of order and priority which governs all things. It is the world which it evolves by permeating it. The Absolute is self-conscious. It projects from itself the object of knowledge so that the Absolute whole constitutes both subject and object. The two make a composite organic whole, the Absolute, which produces the object that is known. The Absolute which is pure spirit, has for one of its aspects—the aspect of Godhood. Hegel conceived the universe as a unity, a monism in which the multiform of the universe is brought into a whole by the axiom of internal-relations, which means everything in the universe is related to everything else. Reality of the universe is that of an interrelated unity which is also a whole. This whole is not merely an aggregate or arithmatical sum of parts, as the nature of parts is determined by the whole. The conception of the whole is prior to parts and the whole is more real than the parts. The parts are partially real and there are degrees of reality in the world. Only the whole of wholes or the Absolute is the ultimate reality. This Absolute is the absolute knowledge, the knowledge which is prior to the knowing mind and the object known. It is also the object of knowledge. For it has externalised itself as object.

The object of knowledge:

Generally knowledge presupposes three factors—the subject, the object and the means of knowledge. By the means of knowledge we mean materials through which knowledge is acquired. These are sensations, ideas etc. Truth means the agreement of our ideas with the objects and a belief in their correspondence. Knowledge cannot be identified with imagination because its activity is compulsory. Again in knowledge there is a reality of objects behind but not so in imagination. The reality again has some affinity with the idea or concept. The real object outside, through sensation impresses strongly on our mind and we acquire knowledge. But imagination is purely the work of our mind.

Truth

Truth is correspondence and coherence. Do the ideas correspond to the ultimate reality or only to sensations given by things? One school of thought is of opinion that they correspond to sensations and thus we get only empirical truths. Ideas are only copies of sensations of past experiences or future. This is empiricism. Thus when I meet a man say, Rama, if my sensations on seeing him correspond with the bundle of ideas that I have of things. It is the world which it evolves by permeating it. The Absolute is self-conscious. It projects from itself the object of knowledge so that the Absolute whole constitutes both subject and object. The two make a composite organic whole, the Absolute, which produces the object that is known. The Absolute which is pure spirit, has for one of its aspects—the aspect of Godhood. Hegel conceived the universe as a unity, a monism in which the multiform of the universe is brought into a whole by the axiom of internal-relations, which means everything in the universe is related to everything else. Reality of the universe is that of an interrelated unity which is also a whole. This whole is not merely an aggregate or arithmatical sum of parts, as the nature of parts is determined by the whole. The conception of the whole is prior to parts and the whole is more real than the parts. The parts are partially real and there are degrees of reality in the world. Only the whole of wholes or the Absolute is the ultimate reality. This Absolute is the absolute knowledge, the knowledge which is prior to the knowing mind and the object known. It is also the object of knowledge. For it has externalised itself as object.

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The truth of knowledge:

Theory of Truth and error:—In Indian thought truth is called *Pramā* or valid knowledge. There are two theories about valid knowledge. Truth may be self-evident or non-self-evident—*Svataprāmāṇya* and *Asvataprāmāṇya* as they are termed.

The Sautrāntika and the Vaibhāṣika Schools take identity of content between a cognition and a cognitum as valid knowledge. It is correspondence. The Yogācāras take consciousness as expressing itself as the subject and object of experience. Consciousness is the *Pramā* and *Pramāṇa*.

Buddhistic idealism accepts nothing as permanent. Everything is momentary. Thus all the categories of knowledge like substance and qualities have been discarded as false by Dharmakīrti and others. For them truth is not self-evident, whereas falsity is inherent. But they accept the pragmatic truth on the workability and practical utility of a data of knowledge (*Arthakriākāritya*).[1]

The Mādhyamika holds that in illusory cognition of a conch-shell as silver there is no real silver. Here non-existent becomes an existing thing. This is the theory of *Asatkhyāti*.

The *Ātmakhyāti* of the Yogācāra school means that an illusion consists in the projection of a subjective element as an objective one as placing a silver in place of an objective conch-shell.

Sāṁkhya accepts intuitionist-theory of knowledge. For them it is internally conditioned and known immediately. It is *Svataḥprāmāṇya* case of truth. The falsity is *Sadasatkhyāti*, apprehension of a real and a false together. Truth is correspondence of our knowledge and judgment. These may be of objects or of laws. It is different from existence. A non-existence, as there is no book, is a true assertion but is non-existing. There are two cases of correspondences, one of relative and the other of absolute truth. Truth which is relative to certain conditions is relative. Moon is circular like a disk is true but scientifically it is not. Relative truths vary according to their limits of application and denotations. As 'men dwell on earth' is of lesser denotation than 'all living beings dwell on earth'. Absolute truths are those that are without any cause or are everlasting. These are of two kinds—*Kūṭastha* or those that do not change and *Akūṭastha* or changeful. Our judgment about the knowing selves or *Puruṣas* is about *Kūṭastha*. Again truths may be *Ārthika* or worldly truths and *Pāramārthika* or truths about the highest values of life, like truths about our liberation.[1] All knowledge is partial due to *Rajas* or *Tamas* predomination. When the internal organs regain the predomination of its *Sāttvika* character, the individual fragmentary character of knowledge is overcome and a synthetic or intuitive truth is attained.

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[1] Dharmakīrti—Nyāyabindu. P. 1.

In Nyāya Vaiśeṣika we find truth consists in correspondence of our knowledge with the object of knowledge and its test is pragmatic (*Pravṛtti Saṁvāda*). When the sense organs, that are the causes of perception are not defective, our knowledge corresponds with the object known. Thus correspondence depends on something else. This is called *Parataḥprāmāṇya*. Illusion occurs when we dislocate a real object and place it somewhere else, as a snake perceived before, is replaced on rope. This illusion is called *Anyathākhyāti*. The illusion is due to our defective vision. The perception of a beautiful picture leads us to take it up. If we are successful, it is true. Thus truth, according to this theory, is made and is known to be such by certain conditions other than those of knowledge itself. It also accepts coherence theory (*Saṁvāda*). Valid knowledge is presentational, is definite and is an assured cognition. It excludes memory, doubt, hypothetical and erroneous arguments. Invalid knowledge is of four types—*Saṁśaya* (doubt) *Viparyaya* (error) *Anadhyavasāya* (indefinite perception) and *Svapna* (dream).

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[1] Hariharānanda—Pātanjal Darśaṇa P.504.

The Mīmāṁsaka and the Rāmānuja school of Viśiṣṭādvaitavāda take up the self-validity of knowledge. They agree that any defect in the perceiver makes invalidity of cognition not self-evident. Thence validity of all cognitions logically become self-evident. The illusion of a conch-shell appearing as silver due to insufficient light, is not readily apprehended. So it is not self-evident. Murāri Miśra, another Mīmāṁsaka, holds the self-validity of knowledge but he says that in knowledge there are three factors— the knowledge, the knower and the object of knowledge. Now, after primary cognition of an object we make an introspection (*Anuvyavasāya*) that we know the object. Again if the validity of a knowledge has to depend on another, then the validity of this second one has to be justified by some other. Thus the fallacy of infinite regress crops up. Coherence is merely a test of truth. Prabhākara however, denies error and as the elements which make knowledge intelligible and the causal conditions which make validity known to us are identical, knowledge is self-valid. This school posits two factors in an invalid knowledge; a valid cognition and a recollection. Thus in the false knowledge of a conch-shell we have a cognition of shell and a recollection of silver both valid, but we fail to recognise the difference between the two. This is *Akhyātivāda* or *Vivekakhyātivāda*.

The Advaitins assert the self-validity of cognitions. So long as there is no flaw in the perceiving subject and so long as it is new and there is no contradiction (*Anadhigatābādhita*), our knowledge is self-valid, or self-evident. Only present flawlessness of the perceiving subject cannot be a criterion of truth. It must not be contradicted in future. The falsity of knowledge is called *Anirvacanīyākhyāti*. It is neither real nor unreal, but indefinable having a *Prātibhāsika Satta*. It is due to *Avidyā* or nescience.

The Mādhva school adheres to the self-validity theory of all knowledge. The witnessing self is self-expressive and this self reveals what is knowledge.

In Greek history we find that Permenides, Heraclitus, Pythagoras and the Atomists reject the sense-perception as not valid. Heraclitus says that senses are 'bad witnesses.' They can be trusted only when a soul judges their value and truth of their findings. Thought is common to all. It alone gives us valid and objective view. In reason wisdom lies. Permenides says that road to truth is not to follow the sense perceptions. The true power of conviction lies in pure thought; thinking and being are the same for him. Pythagoras thinks of numbers as really true which are determined by Logos. For Democritus, of the two forms of cognition, the genuine and the spurious, the spurious cognitions come through the five senses. The genuine cognition gives an insight into reality of atoms and empty space. (Fragments). For Plato, truth belongs to the transcendental realm of ideas. The changeful phenomenal world can yield 'opinion' and appearances only. Before him, Socrates tried to discover true knowledge. He tried to get universal judgment by careful observation and thinking, leaving the false notions. But it was Plato who completed the theory of knowledge. He thought that the soul comes from above with true ideas. For Aristotle, knowledge is concerned with reason. To know, is to know the cause and to know the cause we have to follow certain laws of thought that lead to truth. The pattern of true thinking is syllogism.[1] For Epicurus, our perceptions are true copies of objects, as they come directly through the senses. Ideas are the results of the copies striking the sense organs. Error is the mixing-up of the ideas and we must use our sense organs by using them carefully to achieve truth. With the Stoics, no doubt is possible with reference to 'cataleptic' presentation. Knowledge, for them, is knowledge of sense objects; so truth is a correspondence of impression to things. The criterion of truth is our conviction which is subjective and individual feeling.[1] The Sceptics take truth to be mere possibility in our innumerable assertions. The Sophists deny the validity of universal truth. Truth, for Protagoras, is relative to each man; for man is the measure of all things.

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[1] Frost. Basic Teachings P. 280.

For the Scholastics, truth no longer refers especially to cognition but to religious certainty and religious faith. Afterwards this gave rise to twofold truth; one from the standpoint of knowledge and the other from that of faith.

St. Augustine said—In the inner life of man resides the truth. For him, eternal truths belong to mathematics and to religion. These subsist and are thought by God.

This relation of truth with God in medieval philosophy continued upto the time of modern philosophy. In course of time truth came to be identified with logical certainty derived from principles of reason as in Descartes, Spinoza, Leibniz etc. Truth came to be recognised as a relation which subsists between pure ideas. Gradually we find, the coherence of knowledge and assumption of one idea depending on another on the principle of

[1] Stace. Greek Phil. P. 346.

sufficient reason, becomes the foundation of all truth.

Locke insists that the evidence of particular sense perception is inadequate evidence for the existence of bodies.[1] Evidence of the existence of external world will not survive criticism. In Hume and Berkeley, we find this idea, that in nature there is an empirical sequence which we get through our habit and custom and we get probable truth only.

Leibniz says, that ideas and truths are innate in the mind as tendencies. There are two kinds of truths—those of reasoning which are eternal and necessary truths, and those of facts which are contingent. The existence of God is one among many eternal truths.[2] The opposites of truths of reasoning are impossible, while the opposites of truths of fact are possible. Eternal truths are grounded on the law of contradiction, but the truth of fact depends on the law of sufficient reason.[3]

Spinoza, in his 'Understanding', says, 'Criteria of truth lies within thought itself.' Of the three forms of knowledge the obscure sense-perception which is the result of imagination, the rational and adequate knowledge given by reasoning, and the intuitive but faultless knowledge, the last is the best.'[1]

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[1] Locke Essay IV., XI. P. 1-2.

[2] R. Latta, Leibniz, The Monadology P. 57.

[3] Ibid. P. 134.

Kant, on the other hand says, 'We know things not as things in themselves but as they appear to us.' He does not concern himself with the relation between what we apprehend and what is beyond, nor with the qualities of our apprehensions but with the relation between the present and possible experience which take time as its factor either past, present or future, involving a synthesis.[2] All cognitions of things, out of pure understanding or pure reason, are illusions—only in experience truth is to be found (Prolegom App.).

In the 19th century there are two theories viz. Formalism and Pragmatism. Truth by formalism means, truth independent of individual thinkers (Bolzano). Pragmatism on the other hand, represents truth which is practically useful (Protagoras, James).

Rickert, depends for truth, on what ought to be a theory of value, a real means, a norm for all thoughts. The process throughout, is a movement from empiricism and rationalism of the 18th century, to theoretical, practical, intellectual and voluntarism of the twentieth.[1]

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[1] Frost. Basic Teachings. P. 287. Hoffding. H. Modn. Phil. 303-304.

[2] Lindsay. Kant P. 55.

Pierce says, truth must be tested by its practicality. He believes in correspondence of a belief with Platonic reals and essences. James says, truth is not static. It is man-made, made true by events. It is particular, relative and dynamic. But relations among mental ideas are absolute beliefs; truths here, are of eternal character. As for example, of these relations, we find two and two make four. But Schiller and Dewey think of relation of ideas as conditional. As two drops of water added to two drops do not make four drops but one big drop. According to the latter school there is no absolute character of truth. Truth, according to pragmatic school, is verification. There are five means of it—by perception, consistency, operation, sentiment and general utility. Truth is a thing of degree depending on our satisfaction. Truth is warranted assertability, according to Dewey, meaning a truth is warranted by controlled and competent enquiry.[2]

In our ordinary life we find degrees of truth. We proceed from lesser truth to another higher.

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[1] Ency. Brit. Vol. 22,

[2] Datta. Contemp Phil. PP. 194-198.

Our dream cognitions are falsified by our waking state. The phenomenal truths are lesser than Absolute truths. There are some handicaps in the way to final truth. These are removed by a gradual process. There are our past impressions, and in the process of knowledge we are able gradually to erase these impressions by higher truth impressions. The expression of truth is both self-evident and not so. The reality is ever present, so it is self-expressive and self-evident; but the *Māyā* or past impressions are impediments and make it nonself-evident. The highest test of truth is correspondence, coherence, deductive experiment and sometimes pragmatic, all taken together. Truth is asymptotic. Its origin is in the gross phenomenal world but it looses itself in infinity. Its appearance changes as it moves. It is positive, dynamic and purposive.

Error, according to pragmatism, is failure to attain its object. It depends on its particular context, knower and purpose. There is no absolute error according to them.[1]

The tests of truth:

There are two questions about truth and error.

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[1] Datta Contemp. Phil. P. 208.

The one is about the nature of truth and the other about the test of truth.

Now there are four different theories of the test of truth and error. These are as follows:—

The intuitionist theory, the coherence theory, the pragmatist theory and the correspondence theory.

The intuitionist theory—The older school of Descartes, Cudworth, Reid and Spinoza, thought that some cognitions are known intuitionally as true or as false. Lossky says that truth and falsity depend on their being known through an immediate consciousness of their objectivity and subjectivity. Truth and falsity are objective and subjective sides of a thing as they appear. A conch-shell is objectively white and so it is true, subjectively it may be yellow and so false. The real is indeed given to us immediately. A proposition is not a mental but a logical certainty.

The coherence theory:

For Spinoza, the ultimate test of truth is more truth or more knowledge or the coherence of all knowledge taken together. The falsity is known by incoherence with known truth. He is the first philosopher to elaborate this theory of truth,[1] The idealists like Hegel, Bradley and Bosanquet and the logical positivists like Neurath and Hempel attach great importance to this theory and their opinions have brought forth two different systems of thought. The logical positivistic theory takes truth to mean correspondence with fact but this truth is tested by coherence. But later positivists (Neurath etc.) think that we cannot find correspondence with reality. So coherence means coherence with other accepted propositions of a given system.[2]

According to Joad, truth is not the sum total of all the true judgments. It is more than that. So particular truths are not whole truths. Thus correspondence theory fails. Monistic idealism supports coherence, for it accepts a coherent system of the world. Now this coherence theory may mean agreement of one kind of experience with another kind or it may mean the logical consistency of one belief or judgment or proposition with others forming a system. Russell and Hobhouse reject the former and accept the latter, which for Russell, is a criterion of probable opinion. Individual hypothetical opinion becomes more sure by coherence. It cannot give

[1] Ency. Brit. Vol. 21. P. 236.

[2] Chatterjee Prob. of Phil. P. 156.

Absolute truth. S. Alexander is of the same opinion. Truth of a proposition means coherence or consistency with other propositions in a system of propositions, though correspondence is the real test. Truth, according to the positivists like Neurath, Carnap and others, does not consist in correspondence with experienced reality but with logical forms of thought. Earlier positivists thought this coherence to be logical analysis of the concept and propositions in the sciences. For them, philosophy is the logic of science.[1]

For Hegel, everything exists in a system which evolved from the Absolute. Hence real knowledge must form a systematic whole and the more systematic a knowledge is the more true it is. So all our truths are partial and degrees of truth, the final truth being the Absolute. All human errors are partial truths, for there is no untruth in a systematic whole which has evolved from the Absolute. The different kinds of knowledge are not independent inasmuch as they form a member of a system of an organic whole. The more systematic a truth is, the higher it seems. The idealists measure the degree of truth of a proposition or experience with reference to the Absolute truth. All Hegelians aim at reaching the Absolute truth—but this Absolute truth is always an ideal for humanity; while for the realists a knowledge is either wholly true or wholly false. For the idealists, it is only a question of degree.

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[1] Chatterjee. Prob. of Phil. P. 154.

Truth, says Joachime, is the process of self-fulfilment of ideal experience or the Absolute. He says, in knowledge spirit greets spirit. It is an experience. Our human judgments are referred to a system of judgments that form its background. This again is referred to a broader system, a more inclusive one; this leads us by implication, to an all inclusive, self-complete system, the ideal experience. Thus truth according to Joachime, is truth of system, an immanent coherence within the whole range of being. Truth according to him, is not a correspondence of thought and reality. It cannot be independent of and unrelated to consciousness nor is it intuitively acquired. The determinate meaning of a truth is got from its background, the general structure, of which the particular instance is a member. There is a degree of truth, the greater the background and greater the coherence, the fuller the truth. The scale of truth stretches between Absolute truth and the isolated facts. Error according to him, is a defective truth or shadow cast by a truth; a discord which will vanish in the Absolute. Our finite knowledge is always discursive and is always about something other than itself.[1]

Prof. Bradley writing on truth and coherence says that, we cannot distinguish between truth, reality and knowledge.[2] According to him, we depend on the sense-world and our material comes from it and thus our knowledge begins with it. Our world depends upon these data of perception. Now, to have an orderly world we cannot accept all facts. Some of them which are errors need must be rejected. If the judgments enlarge a system and it is made wider, it is true. The higher and wider are our structures and the more a particular fact is implied in that structure, the more are the structures and facts true. The certainty is absolute if an all-embracing ordered structure is reached. But this is not possible and a relative probability becomes the aim. Our personal self which orders our world is in truth inseparably one with the universe. Behind us the reality works in union and as one.

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[1] Metz. Hundred Years etc. P. 359.

[2] Bradley—Truth and Reality. Ch. VII.

The correspondence theory:

According to Prof. Joad, there are some considerations that are self-evident on which the correspondence theory stands. These are (1) Truth is a property of judgments or propositions. (2) Truth has nothing to do with belief in the judgments. (3) Truth depends on existence of certain facts outside the proposition. (4) There should be correspondence with facts. (5) Emotional satisfaction is not truth. This theory denies the axiom of internal relations, that is, the axiom that objects have relations to other objects of the world. So it is not accepted by monists and idealists.[1] It is useful when two contrary or contradictory judgments are faced by us.

There are several schools of this theory. First the naive realists think that the objects of knowledge are directly presented to our consciousness and are as we know them to be. Truth is direct correspondence.

According to the neorealists, the contents of knowledge are numerically equal to the things of knowledge. The object is the same as is externally present. Another school thinks that between the physical and mental there is a structural identity. Truth in these cases, seem to be one, one-relation of correspondence. This is possible only in cases of factual or visual knowledge. In copy theory of knowledge, we have a resemblance between the objects and their copies or ideas in our mind, firstly as a photograph resembles the object photographed. The critical realists think that the objects are indirectly known through the character complexes. These are non-physical essence or logical entity. The correspondence in these cases is correspondence between the physical objects and the character complexes. It is a case of error when character complexes are not real characters.[1]

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[1] Joad—Guide to Phil. P. 433 ff.

There are two other theories, the epistemological and logical theory of correspondence. In the epistemological case, there is no correspondence with actual reality but to some occurrence or event. This is the view of W. Stace and others. In it truth needs must be experienced. In 'This Book is red' the application of the concept of book to the presentation of red colour when it agrees, is a truth.

In the logical theory of Russell and others, truth need not be experienced; it is true if it corresponds to actual fact. If I say it is raining, it may not be experienced by me, unless actual rain be there.

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[1] Chatterjee—Prob. of Phil. P. 177.

The Pragmatic test of truth:

Kant's doctrine that understanding prescribes its laws to nature and knowledge is to construct an order in our experiences. Fichte subordinated the idea of the true to the idea of the good, and made the theory fulfilled in practical reason.[1]

For Schiller, there is no truth which is merely valid or of pure value. There is no eternal, absolutely valid and ultra-human experienced truth.[2] All truths are man made. Truths that are not proved are false and these are of less value. Every truth is useful, serviceable, applicable, efficacious and fruitful but not conversely.

Truth has a knowledge-value that it has a theoritical context and there is no gap between utility and logic. It is a social product and is not merely an individual factor. In this sense it is objective having the highest social sanction. It is not eternally valid but dynamic. It blots out the distinction between truth and error; they are relative. There are phases of both which pass on the one to the other; error changes into truth and truth becomes error.[1] According to Joad emotionally satisfying beliefs are true in pragmatic sense. A belief is true if its consequence is satisfactory.[2]

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[1] Metz-A Hundred Years etc. P. 451.

[2] Ibid P. 459.

Pragmatic truth of William James, means an activity of mind. Truth is a property of ideas but these are not eternally fixed. It is a process. Truth is correspondence or agreement with reality but this agreement pragmatically means not a copy of the reality but 'to be guided straight up to it or to its surroundings, or to be put into such working touch with it as to handle either it or something connected with it better than if we disagreed'. Coherence leads up to a stage of hypothesis. Truth is its verification. Verification is taken broadly to mean verifiability as well. When verification attains its last limit we reach Absolute truth. Our concern is the relative truth of degree.

He says 'True ideas are those we can assimilate, validate, corroborate and verify. Truth passes, as bank notes pass hands so long as they are not challenged by any body.' One man's verification is accepted by another and viceversa. But concrete verification of beliefs by some one supports the whole structure of truth.[1]

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[1] Ibid P. 466.

[2] Joad—Guide to Philo. P. 452.

For Schiller, truth means practically valuable. We want to predict future for our success but this prediction when successfully verified becomes truth. All truths are useful but all useful things are not true. Truth is a dynamic process. New truths grow out of old ones. We can mould truths and create them. All cognitions that are useful are valid and there is a scope for more and more usefulness. No verification is absolute. The truth is best that is best suitable under the given time and space.

Pierce says, an opinion of all investigatory that is agreed upon is a truth and object of opinion is the real essence. It is the ideal of scientific research and is always a process, a dynamic ideal. Pierce believed in Platonic reals and truth means a correspondence of a belief with the reals. Practical consequences of such belief are tests of truth. In Dewey's philosophy truth is warranted assertability,—truth of a proposition is warranted by competent and controlled enquiry. Their truth is truth that claims an assertion and to distinguish it from a truth that is different from a lie, they say, a verified truth is a proper truth. It must be warranted.[1]

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[1] William James—Pragmatism. Lecture 6.

Truth is absolute and is equated with reality. It is non-dual Brahman and is static, in that sense. Again it is relative and in that sense dynamic. It is transcendental in the sense that it leads us to the absolute truth. It is transcendental in the sense that it seeks the origin of truth. It is corresponding, it is cohering and at times pragmatic. Truth is prehending, one truth leading to another.

Indeterminacy of knowledge

All knowledge, says Eddington, is due to impact of photons of energy either on our sense organs or on our physical instruments.[2] A photon gives a back-ward kick to the atom which sends it out, so the knowledge we get is the knowledge of an old universe which has passed away.[3] Thus photon reaches our sense organs but it brings an old story of the universe left behind and vibration of touch and smell, taste and hearing all are of the same nature. Some photons of small momentum have

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1 Datta Contemp. Phil.—P. 203.
2 New background of Science—P. 235.
3 Ibid—P. 236.

such long oscillation that we cannot fix the instant to which their information refers precisely.[1]

The origin of knowledge:

Our theory of knowledge and the true theory is that our experiences are systematised by reason to produce knowledge. All knowledge is thus acquired. Now knowledge entails two factors operating the object affecting the mind from outside, and the mind operating from within. Spencer, in an answer to the origin of the knowing powers of mind, says, 'Our reason is the product of our experiences. That what is reasoning in us, was inherited from our ancestor's knowledge.' Thus all knowledge is aposteriori though it seems, for the present, to be apriori i. e. it is ultimately produced by sense experience. The external world modifies our mind through diverse sense experiences. Mind grows with the interaction of the external world. It is not of innate origin but an aggregate of past and present sensations. This is the epigenesis theory of mind. The rationalists oppose this. They say that mind is a self revealing entity and reason is its function. The external actions and interactions

[1] Ibid—P. 236.

are leading the mind, to self-realisation or perfection. The proper theory of knowledge as propounded above, is that it is projected from outside and systematised and interpreted by reason and mind adding its own quota to it. For sensations alone cannot explain properly all knowledge, such as in dream, memory etc. So some apriori elements are necessary. The experiences give only sensations, and knowledge has to advance beyond sensations (Kant). We cannot think of self as only a series of feelings and ideas but as an entity, conscious of itself providing connection, unity and pragmatic meaning to our experiences. Again there are certain forms and categories of knowledge which make our experience possible, such as causality, the idea of space and time. This presupposed nature of mind makes knowledge possible. These intuitionists think of the categories of the moral principles and the like as inherent in us.

Reason is only developed by mind's interaction with outside world. It does not come from outside but evolves from within. Mind is continually trying to adopt itself to the circumstances by self-affirming, self-analysis and self-synthesis. Mental development is thus self-development in a dialectic way. Our struggle with outside world leads us to make thesis of ideas its antithesis, and then a higher synthesis.

These theories—the theory of the empiricists, of the experientialists and that of the rationalists or the intuitionists and the dialectic theory taken together explain correctly the mental phenomena.

Categories of thought:

It is the task of reason to interpret sensations according to some categories of understanding. Our ideas of things, mean ideas of them as substances having qualities, of causing changes and having relations in space and time. These categories are generic predicates to other predicates or attributes of things, these thoughts we assume, as axiomatic such as time, space, causality and substance. In our judgment we predicate the categories but every judgment presents only one aspect of the subject more than others. Thus we speak of time relation or space realation or causal relation, one at a time of the subject.

Origin and Significance of the categories:

Time and Space: 'Whence the ideas of time and space, in which we, the created beings live, have come, and what is their nature'—a question like this was raised in the Vedic and Upaniṣadic age, when the seers were in quest of Brahman. In reply to this question, various theories of high order were discussed so far so that space and time has sometimes been called Brahman itself. In the Atharva Veda we find two hymns in praise of Kāla or time. Here we find Kāla as Lord of all.[1] He (*Kāla*) made, He stirred this universe to motion and on Him it rests.[2] By *Kāla* stirred to motion, both what is and what shall be, expand[3]. In the Upaniṣads space is called Brahman. *Ākāśa Vaināma.*[4] In the Upaniṣads Brahman is also called as limited space. Then in this body which is *Brhmanagara*, there is the small heart lotus-like palace. There is Brahman called little mental space.[5] This space with limit is mentioned in detail as *Dabarākāśa.*[6] But in comparison to this space, at places in the Upaniṣads, time or *Kāla* has become a bit insignificant. For example, in the Bṛhadāraṇyaka Upaniṣad, in the conversation of Yājñāvalkva and Gārgī, it comes out that *Ākāśa* or space supports or sustains *Kāla* or time. Space is the static substance

[1] BK. XIX/53.
[2] Ibid 53.
[3] Ibid 53. V.
[4] Chh. Up. 8. 14. 1
[5] Ibid 8. 1. 1.
[6] Ibid 8.

and time is the kinetic energy over it. Everything exists in space and time is the events happening in it. But in the Maitrāyaṇī Upanisad, both time and space are called Brahman; *Kālam Brahma Ityupāsita*—Time should be worshipped as Brahman. Thus in the Upaniṣads, time and space are taken both as limitless and with limit.[1]

In Buddhist philosophy we find *Ākāśa* as one of the unconditioned elements or *Dharmas* which are momentary and durationless. It is non-obstruction. *Kṣaṇa* is an infinitesimal division of time.[2] Nāgārjuna speaks of time and space as appearance. Sautrāntikas speak of *Ākāśa* as unsubstantial void a notion. Vaibhāṣikas take it as eternal substance.[3]

The Jaina Philosophy considers Ākāśa or space to be the first *Ajīva* or *Jada*, or inanimate substance which pervades the world. It is divided into (1) The part occupied by the world of things called *Lokākāśa* (2) The space outside it is *Alokākāśa*—the void behind the world. Space with *Dharma* and *Adharma* is the substrata of all creation. *Dharma* and *Adharma* in Jaina philosophy, have a special meaning. They are the medium of all movement and rest. Time exists but has no magnitude. There is a distinction between eternal time and relative time, which is divided into parts like hours etc. The former is called *Kāla* and the latter is *Samaya*—the former being the cause of the latter. It is called *Cakra* and is also called the destroyer of all composite bodies. It is a duration, and consits of innumerable particles.[1]

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[1] Mai. Up. 6/15.

[2] Radhakrishnan Hist. of Phil. P. 197 Vol. I.

[3] Radhakrishanan Hist. of Indian Phil. Vol. P. 617. 623.

In Nyāya Darśana, Ether (*Ākāśa*), Time (*Kāla*) and Space (*Dik*) are eternal objects. Time is the substratum of objects and is a substantive reality. Vātsāyana says that time is not manifested by space but by action. Ākāśa is physically one eternal and all pervading. It has the quality of sound. It is not perceived. The same is the case with time. It is also one eternal and all pervading. Dik is relative space which is one[2].

Vaiśeṣika Darśana regards time (Kāla) as the cause '*Kāraṇeti Kāla*' (7/1/25). Vaiśeṣika Darśana further says Ākāśa, space and time are substances and cannot have lower species and are individuals. All phenomenal occurrences are in time and space. According to them, only one space exists, for in case of multitudes of spaces we should not be able to ascertain any relation between atoms. Things are produced, preserved and destroyed in time. By time we understand priority, posteriority, and whether an event is simultaneous or otherwise. Time is eternal and concrete. There is a distinction between time and space. Space determines co-existence and time succession. Ākāśa is continuous and infinite. Ākāśa is not divisible. Ākāśa fills all spaces (*Dik*). It is the natural cause of sound and together with *Dik* (Space) it is the general cause of all effects. By reason of *Dik* (Space) we can perceive right or left and so on.

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[1] Dravya Saṁgraha Vṛitti. Pp. 19.26.27.

[2] Nyāya Darśan. V. BH. P. 21. 431-2. Das Gupta., Hist. Ind. Phil. P. 310-21. 831-2.

In Sāṁkhya we find, *Dikkālāvakāśādibhyaḥ*[1] Space and time are got from Ākāśa. Vijñānabhikṣu says, 'eternal space and time are of the forms of prakṛti.' Hence they are universal. But empirically limited time and space arise from conditioned Ākāśa. According to Sāṁkhya *Dik* or Avakāśa is that spatial extension where there is no physical object. Kāla or time is that vacuity in which there is no mental activity. These are pure extensions and as such are mental concepts. For, such space and time, without object and without mental activity, are physically impossible. They are infinite in the sense that they are unthinkable with limit.[1]

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[1] Śāṁkhya Pr. Sūt. 2. 12.

Now we come to Vedānta Darśana which is founded on the Upaniṣads. Bādarāyaṇa speaks of space in *Dahara Ūttareṭḥya.*[2] The little space in the heart is also Brahman.[3] Material space (Ākāśa) is a created product, and ākāśa that is said to be the source of *Nāman* (name) and *Rūpa* (form) is only a designation of the ultimate reality, Brahman. Time according to Saṁkara, represents the relation of spirit and Māyā. As Māyā is not strictly real so the relation between them is not completely real. It has phenomenal reality. Space is the first evolute of Māyā. It takes for granted the law of causality which is not the case with time. All things created, are in space and time and space is in time.[4] Again Kāla or time is spoken in the Gīta as God Himself personified. "Kālosmī lokakṣayakṛt pravṛddha."[5] This time is not our fragmentary time. This time is Mahākāla or time eternal, which is the substratum or support of our fragmentary time.

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[1] Hariharānanda—Pātanjala Yogadarśan-P. 544.

[2] Brahma Sutra 1. 3. 14.

[3] *Ibid.*, 1 3. 14.

[4] Hiriyana-Ind. Phil. P. 367-68.

[5] Gīta 11/32.

Time or Kāla according to Rāmānuja, is real keeping its entity inside Brahman. It is not an aspect of Prakṛti but co-exists with it and changes into moments. Space, on the other hand, is evolved from Prakṛti.[1]

In Vasubandhu, we find, Ākaśa or space as a class of the three non-composite substances. It is eternal, limitless, all pervading, and positive. It is non-material. They maintain eternal time when they speak of the eternal existence of noumenal counter part of the five elements of things. Things on the other hand exist for four moments of production, existence, decay and death. Sautrāntikas speak of Ākaśa as the ultimate atom.

In every country the idea of time and space was current in some form or other. In ancient days there was a strange mythological story in Greece about time. The creator of the universe after creating soul and such other things wanted to create something eternal like the Gods. But this being impossible he created something which has some resemblance of it, and this was time. Archytas has proved that there must be an infinite outside the world. From it time as well as void (empty space) entered the world. Time, for its successive infinity, comes from the infinite space.[1] The void was conceived by the Atomists as unlimited, for there were infinite as also empty space according to these philosophers. Empidocles did not admit of empty space. Permenides thinks of space as filled with being. Anaxagoras also denies empty space.

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[1] Hiriyana-Ind. Phil. P. 404.

Plato speaks of space, as that in which all things appear, grow up and decay. It is the third nature—the intermediary between the world of essence and the world of sensible things and is eternal, which side by side with ideas and the phenomenal world, is regarded as the ground work of the universe. It is emptiness which receives into itself the forms of the corporeal. Plato speaks of universal time, as a moving image of eternity. According to him, both time and space have arisen simultaneously.

Aristotle speaks of time, as moving something and as indivisible. It is motion that admits of numeration. He denies void. For Plotinus, space with divisions are limitations of matter, making them discrete. It is done by soul. By time the world soul copies the eternal.

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[1] Zeller. Hist. of Greek Phil. vol. 1. P. 468

In Greek Philosophy, space is a symbol of voidness. But Descartes did not accept this view. According to him, God cannot create anything which is empty. Again, matter is every where. So space, is something positive. As regards time it is an infinite atomistic series of moments.

Now we come to the medieval European philosophy. Here there are various ideas of time and space propounded by various philosophers. In general the idea of space takes its origin from our idea of creation. We find co-existence in time and space of various things in this world. We call space where they exist together. Further, the existence of space makes movement of things possible. We cannot limit infinite space by any means. For, if we draw any border line we have to draw it in space. So this space is infinite. But this space is not without beginning. For, the space begins with the creation and creation has a beginning. But it became endless when our thinking began its endless march. Space, according to our theory, is divisible infinitely and has three dimensions—length, breadth and depth. It can be empty or filled.

Generally taken, time is infinite, because we cannot limit it. It is the continuum in which all events happen and have mutual relations. It is duration with interval and succession; it appears as if from future, manifests in the present moment and disappears in the past.

The origin of the idea of time and space:— There are two ideas of time in (1) Empirical, experimental, genetic or aposteriori theory (2) Intuitional rational, nativistic or apriori theory.

(1) The empirical non-evolutional view (Hume, Mill, Bain). Motor experience gives us the idea of space. Empty space allows the free activity of our muscles.

(a) Evolutional theory (Spencer)—Though originally it is due to our experience with the movement of our organs, later it has become instinctive and hereditary. It is collective experience of our ancestors transmitted to us.

(1) *The apriori theory*:]

(a) Phenomenalistic Rationalism (Kant). It is a form of intuition. The idea comes from our mind. We think of things and events only as existing in mind. Space exists only in our mind and not outside it. It has no objective reality.

(*b*) *Realistic Rationalism*: (Reid, and Martineau) Space exists outside of us but we know of it intuitively. Popular dogmatic Realism thinks of space as existing in our mind and outside it and the mental idea corresponds with the real space outside.

According to Berkeley, we cannot have an idea of pure space without body. When a motion is created in some part of our body if it is free and without resistance, it can be said there is space. Time, when abstracted from the succession of ideas in our mind, is nothing. Duration of any finite mind is calculated by the number of ideas or actions succeeding each other in that mind[1].

The world is relational and events in space and time imply succession and change, and change implies an all-embracing permanence or Absolute consciousness. The Absolute mind evolves finite things necessarily through time and space. Thus it imposes on them the forms of time and space and the finite minds which are atoms of the Absolute mind necessarily represent things in a like manner. This is the ideal realism of Hegel.

To the philosophers like Alexander, time and space appear as unified and animated. The creation begins with these two realities. The march of creation begins with the stuff or matrix or time-sapce and gradually through evolution gives rise to motion, matter, life, mind or consciousness and reaching or evolving Deity as the end of its journey. The past instance is not to be lost and is not lost in actuality: so it needs a continuum and it is space. Again space needs distinction and points of past, present and future. So time is necessary. Thus dual existence of space-time is a correlate. By intuition we are aware of space-time. It is the lowest impression of the universe of which the Absolute of Hegel is the highest.[1]

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[1] Concerning human knowledge Sec X PP. 97-98.

The opinion of William James is of the nature of Spencer. He opines, 'For ages our mind preserves in memory the feeling of our experiences and by heredity we get this idea of time and space.' No duration or extension can be perceived without a sensible content.[2] It is not like a knife-edge but a saddle-back with a certain breadth from which we look in two directions of time.[3] Again he is of opinion that we have no sense for empty time.[1] The feeling of past is for him a present feeling. It is a perspective projection of past objects upon present consciousness. For James, sensations of space are extensive wholes. The surface of skin, retina and joints contribute to the space-sensations.[2]

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[1] Metz—A hundred years etc. P. 633. Datta—Chief Currents etc. P. 415f.

[2] Psycho. P. 282., Principles of Psy. P. 608 Vol.-I.

[3] Ibid P. 607. Vol. I.

Gentile speaks of time and space as the products of the spatializing and temporalizing acts of mind and have therefore no reality apart from these acts—this act is eternal and above time[3].

Radhakrishnan views time as beginning with creation. For Radhakrishnan "space time quality is the stuff of all events". They exist together. The ideas are separate but in actual process they are intrinsic.[4] Newton's time as a frame work within which events happen is no longer accepted. Time exists only with events. It is a concept from experience[5].

In Whitehead's opinion, extension is a general theme, the substratum of both space and time. The

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1 Ibid P. 619. Vol. I.
2 Ibid P. 268. Vol. II.
3 Datta—Chief Currents of Contemp. Phil. P. 120.
4 An idealist view P. 232.
5 Contem. Ind. Phi. P. 500.

passage of events and the extension of events are the qualities from which time and space originate as abstractions.[1] These are dynamically conceived by him as processes of actual entities or the nexus of such entities. The world is a process, we cross-section it and find time. It is neither an extension nor succession but a fluent stream which can be analysed as space-order or time-order. Time is the unity of multiple components experienced as one but divisible into different moments. Space is the order of experienced multiple contemporary actual entities. It is experienced as a whole though divisible into parts. The origin of time and space is an abstraction from the passage of events and the extension of events. Space-time are the abstract ways of grasping the relation of composite and component parts. There are dynamic processes or binding elements of the actual entities. Experience in both the cases, is of a whole fluent nature which is divisible. He calls simple location as a falacy. A bit of matter has essential reference of relation to other regions of space and other duration of time. Everything is everywhere in a sense and at all times. Every location involves an aspect of itself in every other location. It mirrors the world, when we perceive something from a place, we experience the distant environment fading away in the things beyond.[1]

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[1] The Concept of Nature P. 34. Dutta—Chief Currents P. 463.

In Hobhouse's opinion "Time has a dependent existence. Reality is eternal but this does not mean that it is timeless or changeless. Reality means the gripping together of past and future in a present in which there is no evanescence". It has a beginning and end in eternity.[2]

Perceptual space and time according to Taylor are limited, sensibly continuous, and have qualitative and quantitative aspects. As for example, we perceive space in a line (magnitude) as also in direction (quality). They depend on here and now of individual experience and so are not real. But for scientific purposes we require the construction of the conceptual space and time order by synthesis, analysis and abstraction from perceptual data. Space and time must in some way cease to exist as space or time for the absolute existence. They must be taken up, rearranged and transcended.[1]

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[1] Whitehead—The Science and modern world P. 93.

[2] Contemp. Bri. Phi. P. 185.

According to Bergson, mathematical time is a relation of external things. It is a creation of our intellect and forms no part of reality. By our superficial mind we know the succession of events but when our deeper mind is stirred we can know intuitively as if the whole of our existence is one with our feeling, as when we are in deep emotion. Our experience is a constant continuous flow, it is duration or *Duree* as he calls it. This time is not for measurement, for it develops new characters and does not repeat. It is felt intuitively as a dynamic whole. Duration is the continuous progress of the past which gnaws into the future and swells as it advances. It is the *Elan vital*, the reality itself. It is absolute, indivisible and rhythmic. The general property of matter is that it is extended. There is continuity of material extension. Space is homogeneous.[2]

Prof. Santayana speaks of physical space and time as intrinsically integral to substance. It is variable and self-measured. Pictorial space and time is an image having a subjective centre in a watchful soul. A physical time is another name for the flux of matter and is not prior to events. Sentimental time is the present time that sentimentally feels about past and future. For him, absolute time is a useless term.[1]

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[1] Taylor—Element of Metaphysics PP. 241-264.

[2] Creative Evolution P. 165.

Swami Abhedananda speaking of time says, when we think of Absolute, time and space will vanish. Time and space exist in relation to our thought. It is the mode of thought of our conscious life. Time cannot exist if you have no thoughts. Time means succession. Space means co-existence. They are the forms of sensibility.[2]

Space and time in science :

According to Jeans there are the following divisions of time and space (1) Conceptual space is the subject matter of absolute geometry (2) Perceptual space is individual space of everyday experience, (3) Physical space is the space of physics and astronomy, (4) Absolute space was formulated by Newton taking some fixed standard of absolute rest like ether or restful masses. Time likewise is divided into three classes. (1) Conceptual time is used in dynamics and is subjective. (2) Perceptual time is one-dimensional and is individualistic. (3) Physical time is of physics and astronomy. It is public and general. (4) Absolute time is counterpart of absolute space :] it takes universal time that flows equably.[1]

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[1] Realm of matter PP. 64-65, 74.

[2] Our Relation to the Absolute P. 186-7.

There is no same time for different individual observers unless they are at rest in relation to one another. But as no object is at rest we require four members to fix the position of an object or event in space and time, longitude, latitude, height and time.

An object is called an event. The matter has now lost its materiality. A matter is only an electrical happening, an event in space-time. So in science it is called event; instead of two bodies what exists at any one moment is only an event. An explosion, the flash of lightning, all these are events. Some strings of events make up the history of a body. As two bodies are relatively moving, space becomes associated with time. So whenever we have to speak of these two categories we have to call them space-time continuum, composite something.

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[1] Phy. & Phil. P. 55. ff.

Now this space is curved, Space would have been flat if there had been no matter. So it is finite but unbounded. It is at rest (Einstein) or contracting and expanding (De-sitter) with the passage of time. Of course there is a definite cycle of time in which the universe expands and contracts so that starting from Einstein's static space we have De-sitter's expanding-contracting space.[1] Again with De-Sitter the space-time maintain completely equal partnership, while Einstein supposed them to be indistinguishable.[2]

The line joining the different positions in space of a gravitating mass at different points of time, is the world-line of the mass. Just as a lead ball on a cushion at a certain point of time-space continuum makes a curvature, the continued existence of matter will create a similar curvature in the world-line of its time-space. All gravitating mass, it should be noted, follows a straight path in a curved space.[3]

Space-time in the restricted theory of relativity,

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1 Universe around us. P. 79, 82-85.
2 Ibid P, 82.
3 Phy. & Phil. P. 118.

are welded together, but according to the general theory there appears an unique mode of separation of space and time, now designated as absolute space and absolute time.[1]

Jeans concludes that space that is expanding is a part in which it expands. It is not a reality but a constituent of space-time continuum which is also limited. So unless we think of it as mental the question remains open what lies beyond. So the structure of the whole of nature is also mental. For it is within the frame work of time-space continuum.[2]

Prof. Eddington says that space is like the surface of a sphere with one more dimension and without the inside of it. It may be called a hyper-sphere, finite but unbounded. According to him, there can be no space without matter.[3] If we take for granted the force of cosmical repulsion of relativity theory, we are bound to accept finite but expanding space. Inter-steller space is not altogether empty, there are cosmic clouds there, and there are signs of matter everywhere. The expanding rate of

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1 Jeans- The New Back-ground of Science P. 146.

2 Ibid. P. 305.

3 The New Pathways etc., P. 48.

the universe is proportional to its distance.[1] The more distant the galaxy the faster is its motion. There is a peculiar behaviour of space-time at high speed. According to Fitzerald's theory of contraction, all lengths towards the motion suffer a contraction of fifty percent and all times are doubled at speed of light.[2] Thus according to Eddington there are different frames of space depending on the motion of the observer.[3] Space is appreciated as external while time is of both direct and indirect knowledge.[4] Space according to him, is finite but unbounded like a circle-sphere.[5]

Einstein speaks of space and time as forms of intuition. There is no objective reality of space. It is an order or arrangement of the objects perceived in space. Time also is nothing but an order of the events by which we measure it.[6] Space and time is not absolute for him.[7]

1 Ibid. P. 184-185, 213.
2 Eddington-Nature of Phy. World P. 63
3 Ibid P. 25
4 Ibid P. 60
5 Ibid P. 87
6 L. Barnett.—Universe and Einstein P 21
7 Ibid P. 50

His unified field theory is a fulfilment of unification of human concepts of physical world. It was so long brought to space, time, matter, energy, and gravitation. But by this theory everything is only a ripple in the underlying space—time unity.[1]

Space according to Russell, are different for different senses. Sight space is different from sense space. Long experience brings about a relation between them. Again space differs with different perceiving individuals. It is private space for each individual. But the space which is common to all individuals is an all inclusive interperspective space, the basis of science. It is a logical construction, deduced from experience. Absolute space is denied by him. Physical space is neutral and public.[2] But according to Russell absolute time and space reappears through a back door. The rays of any object come back to its place of origin after traversing the whole of the universal curvature in a thousand million years. At this space and time the objective source of light will appear regularly to the sense of sight alone.[3] But Russell says further that De-Sitter's time can be described in this way that to an observer looking at a number of distant clocks each perfectly accurate, they would appear slower compared with those in the neighbourhood. These clocks would seem to go slower if removed further till at a distance of a quarter of the circumference of the universe, they will seem to be stopped. It will of course take an infinite time to reach us so that in reality it will not be perceived.[1] In the neighbourhood of matter there is an elevation, like a hill in space-time. A body coming near it will have to go round instead of crossing it.[2] The electronic waves create this disturbance.

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[1] Ibid P. 120-121.

[2] Outline of Phil. P. 144

[3] A. B. C. of Rela. P. 172

E. Whittaker thinks that inspite of our highest refinement in science both from the subjective and objective standpoint, the transition of atom from one stationary state to another cannot be described, for the process is not continuous. These events cannot be described on the back-ground of time and space.[3]

[1] Ibid P. 172

[2] Ibid P, 127

[3] Space & Spirit P. 106

Substance

Now we come to the category of substance. In Indian philosophy substance may be taken only as *Brahman* itself in the real sense of the term as the Upaniṣads take it. *Brahman* is the only reality, the only existential real for us. The ultimate reality according to the Upaniṣad is not the subject nor it is the object. It is their underlying principle. The four cardinal truths of the Vedās speak of the identity of the cosmic self and the individual self called *Brahman* or *Ātman*. It is the only reality and the world is an appearance. Swami Abhedananda says —Absolute is like the back-ground of all phenomena. It is the substratum.[1]

In Jaina philosophy we find substance (Dravya) to mean something which has origin, existence and destruction. It has functions of continuity in the midst of change and is not transcendental but something to be sensed. It is the underlying substratum in which qualities, forms and modes occur and inhere. It is in qualities having various forms. It has qualities like existence, enjoyability, substantiveness, knowability and identity.[2] There are two eternal substances according to this school, *Jīva* and *Ajīva*, *Jīva* or self has consciousness, and the second is unconscious. *Ajīvas* are of two kinds. Those without forms are *Dharma*, *Adharma*, Time, Space and those with forms are *Pudgala* or matter. There is an unity and inseparability, between substance and quality. There is a form or mode of their existence. The *Guṇas* do not change, but the forms change as colour of a thing may change but the colour itself is changeless. Matter or *Pudgala* is perceived. It is the material basis of the world. It has the qualities of touch, smell, colour, and sound. It has two forms *Aṇu* (Atom) and *Skandha* (Aggregated form). *Dharma* is the principle of motion and *Adharma* is the principle of rest.[1]

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[1] Our relation to the abso. P. 194.

[2] Haribhadra Ṣaḍadarśana Samuccaya.

In Buddhism we find a momentary existence for substance but a changeless substratum is kept as a doubtful reality. Nothing here is permanent neither name nor form. Nāgārjuna says that there is no substance prior to attributes. They have relative existence and it is not known whether they are one or different.

In Śaṁkara's Vedānta the real substance that exists is *Brahman*. There is no other existence. But in the practical and empirical sense the world is an appearance due to ignorance. The material substratum of the world is sometimes called *Ākāśa* (Bṛh. Up.), Sometimes *Akṣara* (Mund. Up) and sometimes *Avyakta* (Svet. Up).

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[1] Nemaicandra—Dravya Saṃgraha—PP. 17 20.

In Pūrva Mīmāṁsa, Provākara affirms eight categories—substance (*Dravya*), quality (*Guṇa*), action (*Karman*) generality (*Sāmānya*), inherence (*Paratantratā*), force (*Śakti*), similarity (*Sādṛśya*), and number (*Saṁkhyā*). According to this school there are nine substances—earth, water, air, fire, ether, self, mind, time and space. Kumārila adds darkness and sound to this. Qualities that inhere in substance are twenty-four in number like colour, tangibility and the like (The twenty-four are the same as in Vaiśeṣika philosophy).

In Sāṁkhya the first principle of creation is Prakṛti—it is a homogeneous substance from which the world appears. The twenty-three modifications of Prakṛti are the causes of the phenomenal world. Prakṛti is the combination of three *Guṇas*—the *Sattva*, the *Rajas* and the *Tamas* which are not so much as qualities, but are so many powers, Vijñānabhikṣu conceives them to be substantial in nature. These *Guṇas* are substantial, changing in nature. In their disturbed equilibrium only world appearance is possible. These powers are unconscious and though remaining together come to have preponderance of one alone above the rest. *Sattva* refers to the affirmation of being, *Rajas* to the struggling power between *Sattva* and *Tamas*, and *Tamas* is the negative side or nonbeing. The *Puruṣas* are souls and are pure intelligence only.

The Nyāya-Vaiśeṣika substance is different from qualities. Substance supports the qualities. Soul, mind, light, ether, space, time, earth, water, and air—these nine elements are the basis of all corporeal and incorporeal bodies. The atoms or *Paramāṇus* are the ultimate constituents of the concrete substances. They have existence, perishability, minuteness, they are both cause and effect, and have particularity and individuality.[1]

The conception of substance or that which stands under, engaged the attention of philosophers very early in Greece. The Ionians conceive it as material substance like water, air (Thales Anaximenes). It is featureless and indefinite symbol of spiritual substance (Anaximander). Pythagoreans think that the essence of all things is to be sought in numbers. Heraclitus speaking of substance says that it is to be found in the immanent law, the Logos or the primitive fire. For the Eleatics, true being is identical with pure thought. Empedocles thought that the elements viz. earth, air, water and fire are the roots of all.

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[1] Vai. S. 1.1. 4-5.16.

Democritus thinks of atoms as substance — they are infinite and not one in nature, simple and indestructible, indivisible units. They have almost no quality, but have different quantities. For Anaxagoras various kinds of matter are ultimate and underived. Gold, Hair, Earth, Water and all these are matter.

For classical Greeks such as Socrates and Plato, idea or form, the persistent element is the substance. These ideas are substances, absolute and ultimate realities. They are independent first principles of the universe. They are universal thoughts that are immutable, imperishable essence of all things of the world. They are outside time and space and are absolutely perfect. They are got by reason.[1] There is a teleology in the theory of Plato inasmuch as his ideas gradually lead us to the highest idea, the idea of the good.

For Aristotle substance is the individual object. It is the union of form and matter, it is the

[1] Stace. A Critical. His. of Greece. P. 186.

universal in the particular.[1] It is the subject only of all predication. It is the ultimate being.

According to Descartes, absolute substance is a thing which depends upon noneelse for its existence, and this is the being of God. Next to Him there subsist ralatively independent entities, consciousness and the world of bodies. For him extension is the essence of matter.

The only substance according to Spinoza is essential existence that is infinite. It is undivided and unchangeable. It is self-caused and self-sustaining. It is nontemporal in nature. It is one whole and extension and thought are its attributes. It has infinite attributes but these two alone are known to us. God and Nature are mere names of this substance. Substance is not the bearer of attributes but the system of attributes infinite in number. It is incessantly active each attribute activating others in all possible ways. This gives rise to the cosmos. The attribute of extension is the cause of physical world and the attribute of thought exercises its activities by giving rise to the various minds and mental phenomena. These are the finite modes of God as *Res-extensa* and *Res-cogitans*. Modes are modifications of attributes. The modes of extension are the world object and events, while the modes of thought are the minds or souls and mind events. Emergence for him is not miraculous appearance but the re-arrangement.[1]

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[1] Stace—P. 267.

Next comes monadology ot Leibnitz. Monads are force substances. These are spiritual and infinite in number, standing in a hierarchy ranging between simple plant monad and mind monad; clearness of these monads makes difference in them. They are continuous leaving no vacuum in the world. The span ranges from inorganic matter to God. The essential character of these monads is activity in mirroring the universe. This activity takes the form of perception and appetetion or potentiality. They are windowless inasmuch as there is no causal connection between them. No two monads are alike. There is a pre-established divine harmony among them. These monads are not perceived by our senses and have all the ideas innate in them. They are atoms of substance and centres of the world. They are imperishable and ingenerable. They contain the whole of the universe each being a concrete unity of soul and body.[1]

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[1] Ency. Brit. P. 235.

For Locke we perceive the qualities which cannot subsist of themselves so we suppose Substance. Substance means bodies and souls but not known to us. Bodies have attributes like extension, solidity and impenetrability. Souls are immaterial and spiritual. Understanding cannot create new reality. It serves to connect the sensations only. Even if this connecting ground be real it is undiscoverable and un intelligible.[2] He thinks that material perticular substance must be assumed as the support of the primary and secondary qualities, but substance in general is not to be clearly known.

In Berkeley, things are bundles of sensible qualities. The various qualities are contiguous in experience which lead us to imagine them as belonging to one thing. But this conception of a thing or substance is not necessary for the qualities. There is no substance other than spirit. An idea cannot exist in an unthinking thing. Some make distinction between primary and secondary qualities. The former exist without mind while the

[1] Latta Monadology, Pp. 37, 33, 407n. 125, 219.

[2] Essay on human understanding II. xxlii. 2

latter do not. Now if the primary qualities are inseparable from the secondary ones it follows that they exist in thought.[1]

Hume says, we have no idea of substance. An idea is either a sensation or a reflection. Sensation gives us such a thing as colour taste etc. and reflection gives us ideas of passions and emotions. A matter does not persist when not perceived. His conclusion is skepticism but he admitted ideas.[2]

In Kant substance is a concept. It is a category of relation. It is the principle that in all changes there is something that does not diminish or increase. The total quality of matter in the world does not change. The knowledge of this substance is transcendental. It is the basis of the law of causation as the change to effect needs some unchanging substance. It is the ground of all synthetic unity of perceptions and all beings and all changes are a mode of this persisting something. In Kant's analogies of experience, we find the principle of permanence of substance. In all changing appearances substance has permanence, its quantity is neither increased nor decreased. All appearances have two

[1] Berkeley Principles of human knowledge—Sec. 7.10.

[2] C. R. Morris. Locke Barkeley Hume P. 140

elements, the one permanent and the other transitory.[1] There is a reciprocity or interaction in the co-existing substances.[2]

According to the idealists, self-consciousness is the root idea of a permanent substance. Our self is always aware of its identity and integrity in the midst of changes and flux. But the ideal realists like Hegel think that there is one reality, one substance and this reality expresses itself as mind, intelligence, consciousness etc. in ourselves and as objects outside us. It is one self-evolving reality, the absolute. The absolute spirit is the real substance. The spirit according to him becomes self-alienated other. Through dialectic process or reasoning process the spirit becomes subjective and objective spirit. The subjective spirit is the subject matter of Anthropology, Phenomenology, and Psychology. The first studies spirit in its unconscious state called Natural soul. This Natural soul rises to consciousness to become the object of study of phenomenology. It becomes an object of psychology when subject spirit recognises itself as objective. Object is not external to subject. The objective

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1 Kemp Smith. Kant's the P. 121 f.
2 Ibid. P. 131.

spirit is studied in his philosophy of right, of ethics, political philosophy, and political history. The first realisation of objective spirit is in right then in morality, in family and lastly in the state.[1] This spirit becomes ultimately free and realises itself through nature and through the social, political and ethical institutions. It knows itself as the total and ultimate reality.[2]

According to Schopenhaur as our body is the objectivity of the will so every body is the objectivity of the will at some one of its grade. Matter is the universal substratum of the objectification in the abstract sense. Substancc is matter devoid of all the accidents. It is imperishable and permanent through the changes. It is not perceived and is the will itself. Force and substance are inseparable because really they are one and the same.[3]

With Mill, substance is the permanent possibility of sensations and for Alexander space-time is the ultimate stuff or matrix. Substance is a category of this matrix. It remains identical as an existent through the passage of time.

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[1] Radhakrishnan—Hist of Phil. Vol. I. P. 276.f.

[1] Radhakrisnan Hist. of Phil. vol. II.—P. 280.

[2] The world as will P. 48.

Mctaggart's substance is spiritual substance and it is the only existence free from inner discrepancy. He thinks that existence of substance is involved in the existence of qualities. All the substances that exist are one, substance though by perception more substances than one exist. Two substances cannot have the same nature. They can be described but not defined. The nature of this substance is a unity got from the characteristics of the individual members. There is one substance which contains all others, this is the universe.[1]

Whitehead's theory of organism does away with any bifurcation of substance and quality. He postulates eternal objects which constitute the realm of possibility like the world of forms of Plato. It is in an abstract world; when these objects ingress, by God's selection, into spatio-temporal flux, concrete occurrence takes place. On the other hand an actual entity is both a subject and a substance, for its existence depends on its own activity. It perishes immediately but as it is the potential cause of succeeding entity, it has objective immortality. The universe has a side which is mental and permanent,

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[1] Contamp. Br. phil. P. 251-55.

This is the primordial nature of God, the prime conceptual drive.[1]

In the opinion of Santayana substance is outside our thought. It has parts and physical space. Its parts are external to one another. Permanence is not a radical property of substance. There is a degree of permanence in any particular process. All characters, relations and events of the world qualify a substance. Substance is engaged in action and change, so is in flux and is in time. Materia prima, according to him, is an essence; it is not substance.[2]

In Physics, according to the theory of relativity and Heisenberg and Schrodinger's theories, matter has only a very short life. Electron and proton cannot be a single entity. Thus it is not permanent. Again substance has an endurance through time. But modern physics substitutes space-time for space and time.[3] In psychology, the ego is not an ultimate conception and personality is a causal nexus of events.

In speaking about substance Eddington says in the scientific world the conception of substance is lacking. That which most nearly replaces it is electric charges.[1] They are real but not concrete. Jeans says there is no permanence in substance; it is mere bottled energy.[2]

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[1] Essays in Science and phil. P. 89. Proces etc. P. 122.

[2] The Realm of matter Ch. II.

[3] Outline of Phil. Russell—P. 254, 304.

Some Problems of Substance:

How do we come to know of substance? Does it come from outside or do we apprehend it by our mind or does it come simultaneously from in and out? Commonly we understand the external world by our mind. There is an ontological problem whether the substance is one, two or many. If one, how one becomes many? If many, how they come together to form one systematic co-ordinated whole? These are still to be answered finally, for opinions vary. In western philosophy the idea of being, substance, reality, existence have come to be used sometimes as one and the same thing. But the last say is that there is only one substance whose one expression is mind, intellect, and the other way-expression is the multiform material world.

J. Wahl says that we must take into view the level of experience from which we view the thing. The common stand-point is not the same as that of the physicist. There is a dialectic process. Sometimes we look from substance to attribute and sometimes from attribute to substance. There is something called substance. It cannot be thought. But it reveals itself in moments which may be something akin to unconsciousness.[1]

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[1] The nature of physical world. P. 265.

[2] Phy. & Phil. P. 41.

The Causality:

Now we come to the last form of thought, the causality; the way to know a system of facts is to arrange them under a law that is to find out the law of causal order in them.

The history of the world is a history of incessant change, and causal relation is a particular mode of change. In an ordinary sense cause is a power which under certain circumstances becomes energy. Cause is a motion potential or kinetic, which is transferred from one body to another without any loss, so as to bring about a change. There is always a time factor of succession. This may be molar or molecular transference. Thus when one ball causes another ball to roll it is molar transference of motion. When a burning lamp causes fire to a house it is a molecular transference.

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[1] Philosopher's way P. 27.

In pre-Upaniṣadic days the sages of the Vedas find out the various Godheads in their search for the cause of the phenomenal world. Thus arise the Gods and Goddesses like *Mitra*, *Varuṇa*, *Sāvitṛ*. But gradually they divine one final cause like Aditi (the boundless) who is equated with all Gods and men. *Prajāpati* is called the Lord of the Universe.[1] He is called *Viśvakarma* the creator of the world.[2] In the Upaniṣadic age we find *Brahman* is called the cause of the universe. In the Śvetāśvatar Upaniṣad we find Him called to be the cause of everything (6-13). In Bṛhadārṇyaka we find *Brahman* as the source of the sense organs, all the worlds, all the Gods and all the creatures. But *Brahman* is independent of all causality. We must regard it as unchanging.[3] These are the early ideas of causality. But Svabhāva Vāda of the materialists that followed, regarded effects as natural events.

In Buddhist Schools we find *Pratityasamutpadavāda* (from the arising of that, this arises). This means if certain conditions are present the effect arises. This is equal to the law of sufficient reason. Buddha calls it *Dhamma* that being present this becomes, from the arising of that this arises, that being absent this does not become.[1] Later Buddhistic schools thought that valid inductive inferences or *Vyāptis* are two in number; one is causation such as smoke is caused by fire and the other is identity. But the Mādhyamikas denied all conception of causation. *Abhidhammattha Saṇgaha* gives four conditions. The *Alambana* or the support which produces the perceptual cognition, *Samanantara* the immediate homogeneous cause, the *Adhīpati*, the determining condition which decides the specific nature, and *Hetu* which produces the thing.[2] In Vedānta, we find, cause and effect as identical. (Tadannyatvamārambhaṇa Śabdādibhyaḥ)[3] and in the subsequent *Suttra* is given the reason for it, the effect is perceived only when the cause is present. (*Bhāve Coplavdhiḥ*[4]) Again their identity is also established on the effect being present as the cause, before its appearence as effect.[5]

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[1] R. V. X—121.

[2] R. V. X. 82-83.

[3] Bṛh. 4. 4. 20.

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1 Majjhim- N. Sutta. P, 79.
2 R. K. Hist. of Phil. Vol. I. P. 199.
3 Ved. Sut. 11.1.14.
4 Ibid., 11.1.15.
5 Ibid., 11.1.16.

In Nyāya Vaiśeṣika causal relation is a self evident axiom of the nature of motion, and expenditure of energy, a molecular movement (*Parispanda*). Effect is not antecedently inherrent in the cause in this system (*Asatkārya Vāda*). There is an invariable and unconditional relation between the antecedent and the consequent. There are some common causes for all effects such as relative space, relative time, the divine will and moral destiny. In this system there are different causes such as a *Samavāyikāraṇa*, (material cause) *Asamavāyikāraṇa* (non-material cause), *Nimitta* (efficient) which includes *Sahakārīkāraṇa* (accesory cause). Thus for a jug clay patterns are material cause, the colour of the clay is an example of the second and the potter and the wheel are examples of the third and the fourth; the Nyāya system does not accept the plurality of causes. This would vitiate the whole causal enquiries. Çausation has positive-cum-negative relation (*Anvaya-vyatireki*). In western logic this is the joint method of agreement and difference. There is according to this school a continuity between cause and effect, the former being the sum total of the conditions.

Śāṁkhya thinks change is the rule of the world of matter, and so we get the idea of causal connection between the changing objects, the antecendent and the consequent. But according to them cause and the effect are not different. Effect was present in the cause. This is known as *Satkārya-vāda*. Of the three kinds of causes the material cause becomes the effect and the efficient cause is the outside influence that produces an effect and eliminates the barriers. The nonmatrial cause inheres in the material cause. The conditions that remove the barriers are called the concommitant causes and there are concomitant causes such as place, time, form and constitution of a thing. There are several kinds of changes—a qualitative change, an external change and a temporal change.[1]

Śaṁkara is of opinion that effect must exist before its appearance for out of nothing something cannot come. Again cause and effect are continuous, the cause changes continuously and there is no sudden origin of the effect. So they are not two different things. They represent but two phases of the same thing and a change is but an outward appearance of the same reality. Cause is the reality and effect is but a change, an appearance. In the *Vivartavāda* of Śaṁkara effect is really non-existent but for practical purposes it exists as an appearance only. This view is also called *Māyāvāda* or *Anirvācya-vāda.*[1]

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[1] S. Karika, 9.

In Greek Philosophy we find Plato for the first time speaking of reasoning as cause. He also gives the cause proper, the formal cause, the efficient cause and the occasions that help the causes.

Aristotle gives us four kinds of causes. The material cause or the matter, the formal cause or the form, the law according to which the process goes on, the agent or the efficient cause and the final cause or the destination. Aristotle sponsors teleological view of causation as against mechanical. Everything exists for a final cause. It is the goal of the whole process.

Locke in his essay traces the origin of causation to our constant observation. It gives meaning to ceaseless and chaotic change. According to him universality of the relation cannot be established by any finite number of observations. Reflection only gives the ideas of active causation. He took a spiritual view of active power.[2] Material things could be proximate causes, but to start the original motion spirit is necessary as the ultimate cause.[3]

Berckley's causality is final and not mechanical.

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[1] Śaṁkara. V. 2.1.17-18, [2] Ency. Brit. Vol. 14.
[3] Ewing. Fund, Ques of Phil. P. 170,

It has God's direction who wants that there should be a perfect working of nature for human salvation. Hobbes thinks cause to be the sum of the antecedents of the effect. For Descartes cause is equal to the rational necessity and the final cause is the divine consideration. He does not accept that there is any spatial difference between the cause and the effect. He also does away with time. Malebranche, who follows Descartes, thinks God as the only cause.[1]

Leibnitz speaks of cause as the hypothesis of concomitance. It follows from his notion of substance. We attribute, he says, activity, to that substance whose expression of activity is more patent. It is called by him as cause, although in reality all motion is a relative thing. Actually and ultimately God is the cause of all productions.[2] He wants to employ dynamical in preference to mechanical or efficient causes. It is an expression of all powerful will.[3] The connection between cause and effect is an ideal connection only and it implies no physical influence of one substance upon another.[4]

[1] J. Wahl. The Philosopher's way. P. 107.

[2] Latta. Monadology. P. 204.

[3] Ibid. P. 107.

[4] Ibid., P. 106.

Mill's definition is that cause is the constant and unconditional antecedent of the effect. It is also the sum of the positive and negative conditions.

Experience in the opinion of Hume, shows that one event follows another but there is no inner necessity of their union. When we see one phenomena following another we may expect the former in a later occasion when we experience the latter. This is only custom and does not justify any causal connection or conclusion from past to future. He is also of opinion that bonds which unite our ideas are as incomprehensible as the bonds that unite external objects. He denies this law on the ground that it is neither given by experience nor by reason. It is a mental determination.[1]

For Kant, causality is a category of understanding. In his second analogy Kant gives the principle of succession. All alterations take place in conformity with the law of the connection of cause and effect. Causality underlies all our thought and has two conditions. In the first place the principle by itself does not give us a relation of particular causes and effects, but for that, particular experience needs be taken into account. Secondly 'Causation cannot transcend sense-data, for its object is to organise the sense-data'.

[1] Treatease. i.iii-4.

For Kant time and space are essential factors in causality. There is always a spatial and temporal separation between cause and effect. For him, it is not derived from experience but is innately applied to experience for an understanding of it.[1]

According to Hegel the change in an organised rational world cannot be a matter of blind chance. There must be a reason behind it. What is now presented as a cause is in an imperfect condition; a change is for a better state and for all change there is a rational end and why a cause becomes effect, because there is a definite good to be attained. The becoming is pushing itself towards being. There is a thought behind all this change—the thought of the absolute idea. These are forms of thought in the Absolute. Again as the whole is a connected co-ordinated system, a change in any part is a change in the whole, so that individual causal change is a world causal phenomenon and individual realising a good is the cosmic march towards an ideal—the absolute good. Mechanical causation of science cannot take such a broad view. It is the teleological causation that has the determining factor in the telos or the end that is to be achieved.

The Laplace's and Compte's causality becomes an idea of law. The neo-Hegelians speak of spiritual causation which means that all change of spirit is self-caused.

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[1] N. K. Smith. Kant's critique etc. P. 125.

Realists like Perry includes causation under five kinds of dependences viz. (1) general dependences, (2) whole-part dependences, (3) exclusive causation, (4) implying and (5) exclusively implied. Implication means dependence of "a" on "b". It is such that "a" cannot be true without "b" being true. If "b" is false "a" is also false. But the truth of "b" does not make "a" true. Moore says implication may mean either entailment or causation and for Board it is less than entailment and more than probability[1].

For Alexander causation is one of the eight categories viz. (1) Identity, diversity and existence, (2) Universal, particular and individual (3) Relation, (4) Order, (5) Susbtance, causality reciprocity, (6) Quantity, intensity, (7) Whole, parts, number (8) Motion. Now space-time is motion; if there be two motions which are continuous, the antecedent motion is called the cause and the following one is effect and there is a reciprocity between the two. But it should be remembered that motion is equated with space-time and only particular modes of motions are categories.[2]

Mechanical cause for Bergson may act by impelling,

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1 Radhakrishnan Hist. of Phil. Vol. II P. 387.

2 Space Time Diety P. 279.

such as a billiard ball; it may act by releasing as the spark on powder of a bullet or by unwinding as a phonograph. According to Bergson mechanical causality does not apply to life. It is useless to put life into such static moulds. In Plato's theory of ideas we find immanent a particular idea of causality. Everything is derived from the ideas, the first principles of creation and everything strives to return to them. For him, God is the efficient cause.[1]

Whitehead thinks that the two notions of causality and simple location are contrary to each other. If things of the universe are separate pieces of matter as simple location means, then there is nothing that binds them. So causation fails. Thus the universe should be taken as an organic one in which every event pervades and interpenitrates every other.[2] The conception of the world as an organism by Whitehead leads him to think that all entities of the world, past and present, influence directly or indirectly an occurrence. Thus the cause of an occurrence is the total antecedent occurrences of the world taken as a whole. But though nature behaves uniformly, still as the whole antecedent occurrences are not exact, the emergent phenomenon is possible.

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[1] Creative Evolution, PP. 187, 341-42, 77.

[2] Joad. Guide to Phil. PP. 218-19. Whitehead—Science and modern world P. 45.

In physics, classical dynamics, which include not only mechanics, gravitation theory and electro dynamics, bear out the truth of causal relation. Max Plank the celebrated physicist is of the opinion that quantum hypothesis may well be an expression of causal relation[1]. Statistical laws of physics are based on causal relation and particular cases of non-conformity are due to our own inaccuracy and want of delicate observation. In physical science macroscopic method is applied to molecular and atomic studies, where mass values and statistical laws are the objectives. But this method is to be refined in microscopic method of fineness and delicacy. These physicists try to reduce statistical laws to dynamic and strict causal laws.[2]

Biology with complex problems of heredity is approaching the universal application of causal laws. In psychology we find the suggestion of Dr. Stout, that it may have grown in us through habitual association, due to repeated perception of similar sequences. But it presupposes gradual adaptation of means for the attainment of ends.[3]

1 Where Science is going P. 143.
2 Ibid-,P. 145-47.
3 Manual of Pys. P. 420;-22.

Some are of opinion that if we have an accurate knowledge of an individual intelligence, bodily conformity, imaginative capacity, temperament, personal tastes and the like as also the physical and psychical influence of the environment such as climate, food and the like we can tell accurately how the individual will behave at a particular moment; our conduct is the effect of all the re-inforced or contradicting motives which form our conscious or unconscious sphere.[1]

In the opinion of J. Jeans after the discovery of the theory of relativity causality has assumed a new form. Past no longer creates the present or future. The four dimensional continuum cannot have sharp division of past present and future. The world line of bodies moves through the curvature of space-time, the unalterable pattern of the universe.[2] In quantum mechanics Dirac says causality disappears from the events themselves to reappear in our knowledge of events.[3] In the man sized world causality holds good, but in the nuclear world it is futile to know whether motion of atoms conform to the law of causality or not.[1] For, the emission of a quantum of radiation makes the whole motion of the atom to change resulting almost in a new atom[2]. Jeans gives the six factors which vitiates causality due to atomicity of radiation coupled with the undulatory theory of light. (1) Uniformity does not obtain in the phenomenal world. (2) Our knowledge of the outside world is not accurate. (3) No adequate representation of the phenomenal world within space-time is possible. (4) Division of subject and object is no longer precise. It should be united as subject-object (5) So far as our knowledge goes, causality is meaningless (6) The events of the world are caused in some subtratum of the world which are beyond our consideration.[3] The theory of relativity has brought in a new idea of causality. The idea of causality is relative to us; if we can attain a speed greater than light the causal relation will be reversed.

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[1] Plank. Where is Science etc. P.152

[2] Physics and Phi. P. 119

[3] Ibid., P.173.

According to Russell when we have an event there occur other events at neighbouring slightly later places in space-time. But generally other factors come in and between these two events, and in that case the succeeding event is the mathematical resultant of those events that would have followed the various neighbouring events if they had occurred alone. This is the universal law of causation.[1] Causation is both apriori and empirical. For it is apriori as it appears to common sense. But in physics it is empirical.[2] In 'our knowledge of the external world' Russell sums up his opinion about cause. The philosopher's universal law of causation is an ideal and probable truth. What is empirically known is a constant relation between members of a group of events at certain times. Where such relation comes to be known as false, we have to enlarge the group to find a new relation.[3] In causal relation some popular notion of compulsion or force creeps in. Science accepts what happens not what must happen. Einstein's relativity has dispensed with gravitational force. In place of force we have to substitute the laws of correlation to collect them in groups. This is the truth in the old notion of causality. The truth in the old notion of causality is that facts are connected by laws.[4]

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[1] Ibid., P. 143.

[2] Ibid., P. 144.

[3] Ibid., P. 145.

[1] Outline of Phil. P. 155,

[2] Ibid., P. 156.5.

[3] Our knowledge etc. P. 230.

[4] Outline of Phil. P. 123-24.

For Eddington primary laws are laws controlling single particles and the statistical law and the second law of thermodynamics are called secondary laws, the first laws forbidding impossible events and the second are those forbidding improbables. Primary physics takes for granted causal scheme but it is a symmetrical relation and not one way relation of cause and effect which takes time order as granted. Secondary physics distinguishes cause and effect but does not accept strict causality. The relation of effect to cause is called by Eddington causation and the symmetrical relation that does not distinguish between cause and effect is called by him causality. Primary physics takes this scheme. Why have we so firm a belief in the laws of causation? Eddington in analysing them says that the principal laws of nature that are discoverd are apparently deterministic. Again scientific epistemology presupposes this. But he is of opinion that modern physics depends for its prediction more on statistical laws. Scientific studies are making progress as it no longer aims to find out a causal relation in the atomic phenomena.[1] Successful predictions of future phenomena depend on the average configuration of a vast number of individual entities.[1] In his opinion whenever causal connection is found in nature it has always proved erroneous and he thinks that possibly there is no causal mark in the nature arround us.[2] And he adds that this abandoning of the law of causality in the external world leaves no clear distinction between natural and suppernatural.[3] For causality replaced mysterious supernatural agent by natural laws, which enabled fixed prediction. But this is not possible now.

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[1] The Nature of the Physical World P. 286-87.

Taylor draws a distinction between transeunt and immanent causation. It is a case of the firsr when we have to take the world as a plurality. Then the complete ground of the world lies not in any individual but in the whole. Again when all objects are taken as interconnected this inter connection depends on their being included in a single reality; thus all causality comes to be immanent.[4]

How we obtain the idea of causality:

The realists say that we can see that motion both molar and molecular pass over from one thing to another. The sensationists are of opinion that we cannot see motion but we can find in our experience that certain events and event groups are always followed by certain other events. This is the causal connection.

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[1] The Nature of the Physical World P. 289.

[2] Ibid., P. 290.

[3] Ibid., P. 296.

[4] Elements of Metaphysics. 189.

The idealists say that all changes have some reason behind and the reason must be the attainment of a better state. At root causality is the self-realisation of the "Good". Through lesser good, the world is trying to reach the highest good.

Causation is to some extent vitiated by three factors—the factor of continuity, the factor of infinite regress and the factor of plurality of causes. If the time events be continuous we cannot specify a single cause for a single event. In a continuous process, it is arbitrary to draw a dividing line to mark the earlier (the cause) and the later stage (the effect). Again as to infinite regress we find that there are infinite number of events before and after any given member in a time series, so that cause has a preceding cause and so on indefinitely. Plurality of causes does not so much stand in the way as each has a particular effect, but not for practical purposes.

Again all inter-connections depend upon their inclusion in the single system of reality, so causal system is immanent. But for any purpose of thinking the world as a plurality, it is possible and desirable to think causality as transeunt. But Taylor comes to think of all causes as insufficient and appearance.[1] Causation has degrees of truth. There is the highest cause, and hence the quest in us for causal relations. It gives us the transcendental upthirst. Thus causation is pragmatically transcendental.

The origin of causality

Aristotle speaks of the origin of causality from the relation between the means and end. Nitzche thinks the idea of accusation and reproach as the origin of causation. Bergson says the idea of causality originates from a kind of endosmosis between man and nature. Bergson is of opinion that causality is felt before it is thought and it is co-extensive with life.[2] Berkeley is also of this idea that causality has origin in ourselves as feeling rather than as thinking. Whitehead identified causality with control. This is the control of nature over the ingression of sense objects into nature.[3]

Theory of relations:]

All knowledge is relative. There is always a relation between the subject and the object of thought. Now this relation is variously conceived by various authors.

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[1] Elements of Meta P. 189.

[2] J. Wahl. Phil. way P. 115-16.

[3] Schilpp—The Philosophy of Whitehead P. 186.

In Jaina philosophy we find *Anekāntavāda* and *Saptabhangi Naya* which are nothing but relative view-points of reality. Our knowledge is not absolute. It is always relative. When we say 'something may be existing', we also recognise other relative view-points.[1]

According to the Jains a relation of forms has no objective status outside the forms; relations are known intutively. Relations according to them depend on identy on difference of terms[1] They also accept the relation of causality and inherence.[2]

In Buddhism we have several theories of knowledge. Nāgārjuna who advocates phenomenalism speaks of everything as relative. Substance cannot remain without a quality; causal dependence (substance and quality, time and place) and conditionality (part whole) are the relations of a thing that gives them an idea of reality. The representationalists like the Sautrāntikas admit the momentary reality of objects but that can only be inferred. Thus subject and object both are real but preference is given to subject. Objective reality is dependent on and relative to a subject. Vaibhāṣikas are dualists taking both subject and object as real. Both are independent. The subjectivism of Yogācāras thinks objects as nothing but an idea. All things exist through our relation to consciousness. The Vaibhāṣikas admit that objects cease to exist when not perceived. It is relative to perspective.[1] But the Buddhists repudiate the relation of terms on the following ground. For terms have independent existence. And between independent existents no relation can he found. As regards nonexisting terms no relation is possible between non-entities.[2] Early Buddhists do not accept the theory of causation as an internal relation of terms. For they do accept causality in a different sense. For them there is no permanent reality for any change. One momentary existence is possible because of the destruction of momentary antecedent called cause. They also do not accept inherence as no permanent substance is possible. So no quality as permanence is accepted.[3]

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[1] Satkari Mookerjee—Jaina Phil. P.195-211

[2] Ibid P. 218

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[1] Radhakrisnan—History of India phil. P. 34.615

[2] Satkari Mookerji—Jaina Phil. P 205

[3] S. N. Dasgupta. History of Indian Phil. P. 165.

In Sāṁkhya the *Puruṣa* is the subject and *Prakṛti* or the three *Guṇās* is the object. Subject is conscious and is real conceptually not historically. The object is neither real nor unreal. It is not unreal like a man's horn; it is not real for it changes. *Puruṣa-prakṛti* relation is perplexing. It is a supposed relation, though evolution depends on their relation of co-existence. They co-operate like a blind man and a lame going together.[1]

Mīmāṁsa system is realistic. In any knowledge there is a relation of three—the subject, the object and the process of knowledge. The object outside is real. There is a relation of mind and reality outside our sense experiences. According to them there is an abiding relation between the words and their meanings.

In Advaita Vedānta of Śaṁkara, we find the non-dual spirit alone is absolutely real. In all relative knowledge the ultimate consciousness is modified into a subject, who knows, the process of knowledge and objects known. The *Antaḥkaraṇa* or internal organ is called *Manas* when it is not determinate, is called *Buddhi* when determinate, is called *Ahaṁkāra* or self-sense when selfconscious and is *Citta* when it has attention and remembrance. This *Antaḥkaraṇa* brings into relation the self and the organs of sense. All these are relative view points. The world or the object of knowledge is not a creation of our mind nor it is real in the ordinary sense. It is not matter, motion or energy. It is spirit in the strict sense of the term. All these differences of subject—object are empirical and not ultimate. Reals are three, the ultimate, the empirical and the illusory. *Brahman* is the example of the first kind, the world of space—time comes as the second and the shell taken as silver is the third. These are degrees of reality.

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[1] Sāṁ. K. 20:21.

In western philosophy relation is not mental nor material. Relation is common to many particulars and as such may be counted as universal. It may be internal or external. It is internal if it is a condition of the existence and of the nature of the terms. If the relation does not affect the nature and existence of the terms it is an external relation.

In Protagoras we find *Homo mensura* meaning man as the measure of all things. This gives us a relative angle of vision about morality, ethics and all that concerns man.

Democritus speakes of the relativity of knowledge thus—the images which the bodies are constantly shedding and which are the objects of vision are not exact, for things are distorted as they pass through air. In Socratic thought we find an ideal realm in heaven. It does not matter whether the ideal in heaven is existent or not. We can set our own house in order by that pattern. This gives us a relation with heaven.[1] The world of ideas is in a supersensible world and the sensible worlds are relative worlds according to Plato. This is like a relation between various moulds and a featureless stuff that take the stamp of form. This gives a relation between many and one, between thought and things. In *Timaeus* he treats of mathematical and physical relations and in *Philebus* he deals with the relation between the limited and the unlimited in agreement with some laws of harmony. His relations are regulated relations. All relations according to Aristotle are types of the relation of substance to attribute.

Pythagoras assumes an universal relation in the universe of matter and it is number that expresses them.

Descartes wanted to integrate the whole world into a system of mathematical relations. These are causation, substance, and reciprocity. Hegel's system is a system of relations. Everything is related in the

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[1] Republic Bk. IX.

Absolute in which nothing is separate, nothing is abstract.[1]

Hamilton, the natural realist says that to think is to condition. Objects might be a possibility but to know them is to know them in relation. Relativity of knowledge means that we bring objects under conditions to make them objects of thought. H. Spencer thinks that thought depends on relations, our thoughts are of difference and likeness of things. He says that only phenomenal and conditioned are knowable but a reference to Absolute is necessary in the principle of relativity of knowledge. Dr. Bain says that the world is a system of relations. In the opinion of Prof. Stace relations are not definable. They do not belong to any of the categories of qualities of things existing in space-time nor are they objects of sense perceptions. In the opinion of Mill relation supposes more than one object.

For the idealist thinkers only internal relations are real. The advocates of this view like Joachim and Bradley think that the subject and object are by their nature so related to each other, as mind and consciousness are, that one cannot remain without the other. There is a qualifying, modifying dependence between them.

[1] Jean Wahl. Philosopher's way, P. 235, 237.

Relations, for Bradley, presuppose quality and quality relations. Each can be neither together nor apart from the other. They give appearance and not truth.[1]

Green thinks that all objects are thought products. Relations determine the nature of things hence all relations are internal.[2]

Each Essence according to Santayana, is universal but existence is individual due to its existence in space-time. Essence is self contained and real for its intrinsic nature does not exist in space-time and is not accidentally related to anything.[3] It cannot be known empirically but by intuition.[4]

According to Dr. S. Chatterji all constitutive relations are internal and all non-constitutive relations are external, taking our stand on the accepted notion of the terms, without taking their ideal character.[5] 'A book on a table is a non-constitutive relation hence external, and Shyam the father of Rama is a constitutive relation of the objects related by them; hence it is internal.

1 App. & Reality Ch. III.
2 D. M. Dutta,—Chief etc., p. 72.
3 Philosophy of Santayana p. 475.
4 Ibid., p. 477.
5 The Problems of Philosophy P. 244.

Prof. Ewing gives some internal relations of a term (1) Relational dependence of existence and nature (2) Inseparability and essentiality of their relation (3) When taken out of their relation their nature changes (4) Related terms belong to a whole (5) Relationship makes them what they are.

Knowledge is internal to both subject and object as knowing is to establish a relation between subject and object and as relations are internal it is related to the Absolute real; it means a knowledge of the objects of the world system as a whole. Every thing of the world is causally related either directly or indirectly to everything else. As causality is an internal relation we must assume an internal universal relation among all objects of the world. As all are internally connected, it leads to a monistic view of the world as everything belonging to an unitary whole. This is the idealist's view.

Of the two different kinds of relations the external and internal, the realists uphold externality of relation. One division of this is spatial relation. All physical objects occupy a space in the universe. This is an universal relation for all objects. Temporal relations are likewise universal and common to all physical bodies. They may be past, present or future in time order. According to modern physics time-space goes together. In the numerical objects we find quantitative relations, as the weight of a thing may be double the weight of another. The qualities of sound, touch, form, taste and smell give us qualitative relations. Things that are related causally enter into causal relations. Lastly there are logical relations. These relations are due to logical nature of terms, such as contrary, contradictory and subaltern nature of terms. This theory is based on pluralistic view of the world.

There are social relations like neighbourhood. Again there are ethical relations like father, son etc. Political relation is also to be included under external relations e.g. India is free.

Mental relations are also external relations e.g. Rama is a friend of mine. Again there are economic relations like creditor, debtor etc.

The idea of the universal:

The subject-object of knowledge leads us further to the consideration of the idea of the universal. The Indian schools are generally nominalists or realists. But conceptualism is also found. First of all the Buddhist philosophy does not admit of universals; as specific individuals (*Svalakṣaṇa*) alone are existing. There is no class essence in the individuals. It is a practical makeshift of our mind (*Vikalpa*). Nominalism is their accepted theory. The idea of sameness is due to their common name and similarity. Indeterminate perception alone is real as it is free from all forms and categories, and in this perception the universal is not apprehended.

According to the Jains an object of knowledge is both universal and particular (*Sāmānya-viśeṣātma*). They steer a middle course between nominalism and realism which is conceptualism. Universals for them are of two kinds viz. (1) The unity of the individual running in and through the diverse states and modes, which is called the perpendicular universal (*Ūrdhvasāmānya*) and (2) The horizontal universal (*Tiryaksāmānya*), the sameness of different individuals belonging to a class. This sameness is not an objective unity, but is only similarity or similar change (*Sadṛśapariṇāma*). This position is due to the influence of Dharmakīrti, which is adopted by the later Jains.[1] Sameness is only a concept based on similarity of structure and form and not a real unity.[2] The first Jaina writer on the universals is Samantabhadra. His commentators like Akalaṅka speak of the universal as a qualitative aspect of the individuals numerically different in different individuals. The universal which is got by similarity is numerically different and discrete in diferent individuals. So it is an ontological fiction to take it as a unitive self identical principle.[1]

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[1] Dr. Satkari—Jaina Phil. P. 317.

[2] Sinha—Indian Psycho P. 172

But Samantabhadra thinks that all things spiritual and material are united having one common existence.[2] The universal for the Jaina is dynamic.[3] Taken synthetically the whole reality is a universal unity.[4]

Rāmānuja like the Jains holds a modified nominalism, individuals alone being real, but there is a likeness among the individuals of a class. So also do the Mādhvas.

The Naiyāyikas recognise universals and individuals and the relation between them as one of inherence. The universal is not born with individuals and does not perish with them. These are eternal, timeless and real types, nontemporal in nature but which inhere and manifest themselves in the relevant individuals. The universal subsisting in supersensible objects is not perceived. The universals of perceptible substances or things are perceived by a sense contact of *Saṁyukta-samavāya* process. The perception of other individuals having the same universal is a *Saṁyuktasamaveta-samavāya* sense-contact.[1] They are realists in this respect.

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[1] Dr. Satkari—Jaina Phil. P. 295.

[2] Ibid. P. 296.

[3] Ibid. P. 297.

[4] Ibid. P. 301.

The Vaiśeṣikas accept plurality of substances and the general property residing in them is called *Sāmānya*. For Kaṇāda it is modified conceptualism but it has an element of realism, for Praśastapāda it is real, eternal, and resides in many things. These general properties are mutually exclusive unless they are related as genus and species. One general property cannot enter into another general property or coexist with it. Generality has degrees high and low and it is more persisting than the particulars, being eternal. The highest is called *Parajati*. *Jāti* is different from *Upādhi*. The latter may be adventitious and transitory in nature. Generality is relative to thought, being discoverable and discernible through it, though objective.

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[1] S. C. Chatterjee Naya theory. etc. P. 167.

In Pūrva Mīmāṁsa Prabhākara speaks of universals, as real, existing in the individuals and sensible in sensible substrates, just like the Vaiśeṣikas. It is different from a particular character. But with Kumārila it is both different and identical with particulars. The individuality and class essence inhering in the same object give the identity while they are not synonymous, and this gives the difference.

For Śaṁkara *Brahman* alone is real and universal. But as a lower reality universals are accepted. Individual substance, and qualities and actions are generated empirically. Universals are unborn essences while individuals are born and perish. They are moulds like Platonic ideas. (Śaṁkara Bhāṣya). He sponsors modified realism. The later Vedāntists do not admit of *Jāti* as real. For it is not known either by perception or inference to be something separate. In this they all follow the Upaniṣads where *Brahman* is the only universal.

Mīmāṁsakas like Kumārila accept the universal to be the main idea behind a word i.e. its meaning. The early Naiyāyikas accept the universal, the individual and the form all three together to be the principal meaning. But the later Naiyāyikas reject the form from their consideration. The dualist Jayatīrtha accepts individuality to be the primal factor.

Mīmāṁsakas further say that the inter-relation of the word in a sentence is to be taken as the real significance of a word.[1]

In Western thought universal means that which the thought conceives to be common to several particulars of a class; it may be of some quality or relation of the member of the same class. It cannot be apprehended by sense perception. These are sometimes called predicates. For the nominalists the universal is a name only. Individuals alone exist. According to conceptualism there are individuals in nature but universal exists only as a concept in mind and for the realists it exists both in nature and in mind.

In Western philosophy we find the Socratic doctrine that all knowledge is of the universal. All knowledge is through concepts and this means basing knowledge upon universality of reason.

According to Plato ideas are the universals embedded in the particulars (*Universalia ante res*), the unity that binds the multiple world. He says when our intellect rises to the level of ideas we get universals and attain knowledge. Ideas or the Socratic concepts express the essence of a thing and is freed from all particular qualities. It is in the realm of a contemplation in a supersensible world. These are uncreated, indestructible, self-centered, invisible and imperceptible reals (Timaeus).

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[1] Aśutoṣh Śāstṛī—Vedānta Darśan P. 261 vol. II.

Aristotle postulates form in place of idea. It represents the universal and is the essence of a thing. Form resides in the particulars and does not exist in a transcendental realm (*Universalia in rebus*).

In the twelvth century the question of the universal became an important topic. Abelard says things resemble each other and this resemblance gives us universals. Platonic ideas exist as God's concepts.[1]

For St. Thomas God knows only universal truth and the universal subsists in the soul. God's essence is of the nature of universals but his existence is not such.

Occam accepts Plato's *Universalia ante rem* and these are not things. These are first objects by primacy of adequation and not by generation[2]. Locke says generality consists in several ideas that are applicable to variety of particular things. Kant divides judgements into three kinds according to quantity. These are universal, particular and singular. But these are based apriori on categories of quantity which are unity, plurality and totality. An idea according to Berkeley when considered in itself is particular, it becomes general when made to represent or stand for all other particular ideas of the same sort. These universals depend for their reality on God and all knowledge and demonstrations are about universals.[1]

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[1] Russel Hist. etc. P. 459.

[2] Ibid. 497.

Hegel's concrete universals are not independent of particulars but are in them and realised therein.

For Bradley real or concrete universals are identity in difference. But he does not recognise abstract universals as existential. We do not have a triangle which is not an equilateral or right-angled or a scalene, it is an event in mind and is particular in a sense. A concrete universal is real; an individual when viewed as maintaining its identity in spite of different characters and conditions is a concrete universal but when we want to view its difference only one individual set against other it is a concrete particular.[2]

Bosanquet contrasts concrete universal with abstract universal by an analogy with the centre of radii and the superficial area. Abstract universal means the character repeated in a large number of individuals but the concrete universal is the centre of reference and the Absolute is the only concrete universal. It is the self-identity of a thing in spite of its diverse characters and contents.[1]

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[1] Principles Introduction P. 12, 15.

[2] Chatterjee. Prob. of phil. P. 255-7. Bradley. Truth and reality P. 296-7.

A universal or general conception, according to W. James, is of an entire class or of something belonging to an entire class of things. But the conception of an abstract quality when taken by itself is neither universal nor a particular; it is a floating idea.[2]

Prof. Hoernle speaks of universals as class character which is common to or identical in many objects and is the norm for the particulars. It is realised more or less in the particulars in modes or degrees. As white colour is realised more in a particular white thing which is more bright in shade. A particular is good or bad in consideration of its coming to the standard of the universal.[3]

Prof. Blanshard says universals are related to the particulars as potential is realised in the actual. It

1 Chatterjee Prob of Phil. P. 257-9.

2 Psychology. Vol. I. P. 473.

3 Metz. Hundred year etc. P. 440; Chatterjee. The problem. etc. P. 262.

is the ideal. It is the same as also different from the particulars. It is an identity in difference. As thought is partially a thing itself but the thing is thought realised fully, so universal is related to particular species. Prof. Blanshard gives four different meanings of the term universal. (1) The abstract universal which is the common character of a genus identically present in all the particulars of the genus. It can not be clearly thought of, it is not real. (2) There is a generic universal which is legitimate but present in idea. Its potentiality is partially realised. (3) Qualitative universal differs in degree from the generic universal such as whiteness or blackness. (4) The specific universal is identical with itself in various contexts.[1]

Prof. Stout says universal is the distributive unity, it is ultimate and unanalysable. It is the ground of similarity of particulars in a class. There are two senses of similarity—agreement, that can be directly found by observation and comparison. Secondly agreement that is indirectly found by recognising them as belonging to the same class. The latter is the more fundamental type. In language he thinks, the universals expressed by many words combine in a unity which determine and particularise the rest to form a whole.[1]

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[1] Nature of thought Vol. I. P. 624.

Kemp Smith says that universal is a name for the type and not a class or totality of instances. Type is a predicate and not a particular character. Type requires other examples than the character which is particular.

Chatterjee says the universal means identity of substance, of qualities and relations, of form or structure and of functions and these are not exclusive and are manifold in nature.[2]

Universals, according to Russel, do not exist but they subsist and are timeles. They are changeless. We have immediate knowledge about them. But he thinks that we can never apprehend them.[3]

The eternal objects or pure potentials of the universe have been termed universals. They in their nature are abstract and transcend particular concrete occasions. It is according to Whitehead, the individual essence.[4]

Universals have a psychophysical character. It has an inherited aspect inasmuch as we inherit

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1 Manual of Psycho etc. P. 539.

2 Chatterjee. Prob. etc. P. 284, 293.

3 Outlines of Phil. P. 57.

4 Science and Modern world P. 159.

from our parents class notions. We come to know the general character or type or identity of function or something persisting in the diversity of nature. It has an aposteriori character as experience of our early years. These experiences kindle our inherited notion of a universal. It has a transcendental character, the absolute universal of Vedānta or of Hegel. The absolute nature of our soul is always the norm, the unmoved mover of our quest for universals.

The Theory of the Universal in General:

In this connection we may notice three metaphysical questions, called nominalism, conceptualism and realism. Metaphysical nominalism or individualism or pluralism means that only individuals exist as reals and universals are only logical concepts or objects of logical conceptualism. It leads us to materialism. This logical conceptualism may take two forms; nominalistic conceptualism: the class idea is an abstraction, a mental construct from the individuals; absolute nominalism thinks that we cannot have any class idea. We think wholly in terms of individuals. Realism thinks of essences or universals as a power that differentiates, co-ordinates or sustains the individual parts or factors of one reality; it evolves the individuals making them as members of a whole. It is the divine idea in the world system. They are more real than the individuals. In conceptualism universals have no existence except in our mind. It is found by subtraction from individuals. Conceptualism has two forms (1) there is real class essence and we can have ideas of them. This is conceptualism with realism. (2) There is no class essence but we can have ideas of them. This is conceptualistic nominalism.

The Sense-data:

The emergence of critical philosophy has raised a question of what we actually do perceive. The subtlety of our thought process has given rise to a number of theories about the nature and objects of our perception.

In Buddhism we find that there is an impact of objects and the senses in our perception. According to some the sense-objects and the senses exist conditionally, mind (mental sensation) depending on matter. In later Buddhism we find the presentationists like Vaibhāṣikas think of objects as reals. Representationists like Sautrāntrikas think of objects as reals but depending on our mind for apprehension while for the Yogacāras everything is mental. For Vasuvandhu Āyatana are twelve in number: six sense organs with six sense data. In Jainism objective reality is accepted but it is perceived and understood by intellect. According to Vaiśeṣika philosophy gross substances are made up of parts and dyads form the minimal objects of perceptions. For Nyāya it is a sense-object realistic contact. In visual contact the vision in the nature of light gets out of the body and makes a contact with the object outside. The Vedantists also take this view of perception.

In Western thought sense datum is that which is perceived by the sense organs. The idealists and the representationists think that these are mental construct. Berkeley holds them to be ultimately ideas of God.

Realism holds that sense data are physical and real. In perception we get in touch with real physical objects. Generally speaking there are five kinds of sense-data viz. visual, tactual, auditory, gestatory, and olfactory, corresponding to the five sense organs.

As regards the relation of sense-data to physical objects, or perceived objects, we find various theories. In the first place we find the doctrine of phenomenalism; it means the objects are only collections of sense-data, both actual or possible. The causal theory says that the material objects are the cause of the sense datum.

A family of sense data refers to the actual and obtainable data. Some of these fit together to form a single solid called a nuclear solid. It enables us to unify all sense-data. This is called the collective delimitation theory of Price. According to him a material thing consists of a family of sense-data and a physical occupant. There can only be a perceptual assurance and not a complete certainty of the material world. There is a point of view from which the best group or family of sense-data is available—these are called nuclear sense-data. The sense-data are public since they are observed by all possible persons.

According to G. E. Moore sense-data or sensibles are directly apprehended. They are different from the act of seeing and are identical with the parts of the physical objects. They continue to exist even when they are not perceived. His theory is representative. They represent the perceived object which also represents the whole aspect of the object. Error in perceptual judgements, as seeing an elliptical coin from an oblique position, is due to inference.[1]

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[1] Dutt. Chief. Currents, etc. P. 375-79). Chatterji. Prob. P. 104ff.

Russell's views about sense-data are striking. In the problems of philosophy he opined that colour is a sense-datum and the seeing of it is a sensation. It is also distinct from objects that give rise to it. These are self-evident and certain as entities of perception. In his Analysis of Mind he tries to identify sense-data and sensation.[1] Upon these sense-data our knowledge of the outer world depends. A sensibilia becomes a sense-datum by entering into our awareness; a sensibilia is possible but not actual sense-datum and represents the appearance that would take place if a perceiving consciousness entered into a definite relation with an object.[2] These are not persistent and are believed instinctively.[3] In his Analysis of Mind he says that a patch of colour is both physical and psychical and thus sensation and sense-datum are held to be identical. In a later work Outline of Philosophy he thinks that what happens is within our brain.[4]

Santayana holds that what is presented in perception is essence as distinguished from existence, being bare form of appearance. It is given by our animal faith and is immediate and free from doubt. It undergoes no change and is eternally absolute and universal having no particularity.[1]

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[1] Russel. Analysis etc. P. 143.

[2] Hundred years British etc. P. 579.

[3] Problems of Phil.

[4] Our knowledge etc. P. 130.

Alexander thinks that datum belongs to compound objects which exist in nature and have their quality. Just as a stick in water appears to be bent, the sense-datum is bent stick plus water-compound though actually it is straight.[2]

Prichard speaks of the theory of appearance which affirms that different appearances or sense-data appear to different observers but these cannot be compatible at the same time. These sense-data are different from real qualities.[3]

Prof. Drake says, they are non-physical experienced particulars brought into existence due to an interaction between a physical object and our organism.[4]

Prof. Strong summarises the idea of sense-data as follows :—

(1) The datum is not real, (2) it is not psychological, in nature (3) it is not existing.[5].

1. Phil. of G. Santayana. P. 368ff.
2. Dutt. Chief current etc. P. 397.
3. Ibid. P. 398.
4. Chatterje. The prob. P. 130.
5. Datta. Chief currents. P. 368.

Whitehead divides object into sense objects, perceptual objects and scientific objects. The sense objects are such as colours, smells. They correspond to Hume's impressions. They are the primary factors of external things of the world. All knowledge rests on these.[1] Whitehead has an insistence on the numerical and quantitative distinction between sense data and thing.[2] He is of opinion that we can have sense-data without language and its categories. But this is not knowing sense-data. It is meaning that turns sense data into things.[3]

Interaction complex theory of knowledge:

Knowledge, in the author's opinion, is an interaction complex. It is an interaction in the sense that the subject emerges out and becomes one with the object, and the object also comes into our consciousness through some medium to become one with the subject. Now, in this interaction, both the subject and the object take part as living and sensible. Both are active to reach and act on each other. There is "prehension" in both. But these two do not act equally. Our mind is more active; and

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1. Metz. P. 607.
2. Schilpp.' The Phil. of White head—P. 103, 506.
3. Ibid P. 310.

more potent; it is complex in this sense that the subject mind has many impressions and instincts (Śaṁkāras) both racial and individual. These take part in the shaping of human knowledge. Again the object is being modified by the individual soul's impact in the act of knowing. If according to Jeans, the emerging photon kicks and alters the atom that it leaves, the mind or soul emerging from the subject can be presumed to alter the subject. It also alters the object on which the impact occurs. Thus both subject and object undergo a double change. According to the idealist a relation modifies the object.

In Vedānta philosophy we find that absolute knowledge-process is at the root of the Universe. So the subject and the object are, from the beginning trying to know each other in the relative sphere. In Buddhistic philosophy *Āyatana* or sense organ is the door for the coming out of consciousness.

This interaction serves as a corrective to the knowledge that is our quest. When we see a hill from a distance we get the impression of its small size by our sense of sight. But our soul reaching out, knows the size of it.

This individual interaction alters the cosmic subject and object. So knowledge is micro-macrocosmic re-arrangement of the scient vibrations existing in the subject and the object. This re-arrangement leads us from truth to truth which has no end. Thus this theory gives the highly dynamic nature of knowledge. Viewed from lower strata it is an interaction to reach the higher knowledge and viewed from the higher it is a play of the Being for Becoming. There is pull from above (Aristotle) and play or dialectic manifestation downwards (Hegel).

This theory satisfies the feeling of totality of Gestalt, of relation of inner activity (Dialectic) and of inner experience. The knowing subject has a feeling of totality and satisfaction as soon as it comes to know something. The theory embodies empiricism of Kant and transcendantalism of Bradley and others. It embrances the idea of selectivity of Holt who thinks of consciousness as a search light. It also satisfies pragmatism inasmuch as it is prospective; for consciousness gets out on a definite purpose. Again there is time-space in which generally space factor predominates. Only very occasionally time factor comes to the forefront. Dewey and James say truth is made but this making is of the relative truth. There are various objects that want to enter into our consciousness, but as our self is more powerful than the self outside, we give prominence to a single object of knowledge.

There is an animal faith in us that the soul can know by getting out. The child seeks to hold the moon by trying to catch it, the monkey seeking for food tries to reach it, the evolution of human organs like hands etc. is posible by this animal faith of the soul that has an urge to get out.

Like an atom that changes and dies each moment. The soul changes and its character is indeterministic; the idea of negativity and positivity or we may add further, it is more than what it is and is not. Real knowledge is the highest compresence. Alexander says "Consciousness is the highest compresence.' In reality it is not only that but a compresence of both immanence and transcendence. For it is in the subject and it transcends the subject to reach the object.

There is a cosmic back-ground of our self and upon this all particulars impinge. Thus all our knowledge is neither the whole truth nor they are of the particulars. It is mixed up of both as in a cinematograph two pictures are seen superimposed. When we get sudden flashes of knowledge it is due to the objects trying to enter our consciousness.

That the consciousness with the mind gets out, which is Vedantic Vṛtti is corroborated by the brain-wave theory of Dr. Oscar Brunlar. He has proved mechanically that our brain and indeed every object emits rays. Prof. Whitehead comes to something near this when he says that Nature flows into the mind and flows out transformed by it. The dynamicism of the Mīmāṁsakas, of the Buddhist, of Bergson and of Prof. Dewey coheres with the dynamic nature of this theory.

Some amount of corroboration is found in the following ideas. In *Sāṁkhya* and Vedānta philosophy we find that the individual soul gets out through the eyes and ears like pencil-rays and reaches the object of knowledge and takes the shape of the object as an ocean reaches a pond to fill it up.

Clairvoyance and Clairaudience which are not otherwise explained find explanation in this theory. In this State the soul gets out gathering a special force and reaches a far distant object of knowledge. Thus knowledge of very distantly placed objects are got.

As Whitehead's actual entities change the world and enriches it, so soul entities change the world. Empedocles thought that soul can transmigrate and sight is caused by effluences of the fire and water of the eye meeting similar effluences from external objects. His theory of sense perception is, like perceives like. Democretus thought that sensation and thought are due to impact of atoms of object on the atoms of soul. There are two great lines of thought that we get from the Greeks. There are the rationalists who think that all ideas are innate; the external world stirs them only while the empiricists hold that mind has no innate idea but it looks into the outer world through the windows of the senses. If we take the two ideas and mix them up we get the real truth that has bearing on our theory of interaction. The innate ideas are stirred by the external world and the mind with inner ideas gets out to reach the outer object for correspondence. Again in Plato, we have an idea of Synangria or union of rays. This means that the light or fire in the eyes proceed towards the object of sight. But instead of reaching the object it transforms the air making it similar in nature. Thus eyes and object are connected by a homogeneous medium. The object sets up a movement in this medium and the movement passes on to the eyes without any hindrance.[1]

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[1] Basic teaching Frost. P. 282.

In psychology we find that the maximal vastness yielded by eyes surpasses that yielded by any other organ. The ear gives a greater vastness than the skin.[1] This interaction theory explains why this phenomena occurs. For according to the Vedānta School through these two organs mainly the soul gets out like rays of light, and light, it is very well known, spreads out as it leaves its place of origin.

Russell says "In Logic (the source of Philosophy) Atomism replaced organic view".[2] But philosophy, to be more complete, should not replace organic view but should make a synthesis of atomism and organism. In the world of system we find both atoms and the organic wholes as real. His example of the berieved men not suffering any mental change until he hears the news of berievement, is not always the fact. Where there is a depth of love such as deep motherly affection, even accidents are recorded in the kindred souls. (Russell denies interaction. But whenever our mind-waves inpinge on an object it cannot but alter its atomic vibration. The alteration might be very subtle and needs delicate machinery to register).

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[1] W. James Psycho, P. 336.

[2] Twentieth Century Philosophy Page 242.

Whitehead says the sense of touch gives a peculiar vivid reference for that has been taken as the standard of verification. Doubting Thomas wished to touch the Lord.[1] From this we can guess that the Soul wants to touch 'a thing for verification and when this is not possible by sense contact it does by its subtle essence'.

John Laird in his thesis, 'How our mind may go beyond themselves in their knowing', says, In the language of our own days all objects of thoughts are thoughts themselves……To know them therefore is to become part of their self-knowing.'[2]

Again radiant energy as we know is one of the causes of perception. But visible range is very limited. Out of the entire field of radiant energy only a very small fraction is capable of exciting the retina. This is also the case with the sense of hearing. Thus we can imagine that soul steps in 'to make good these defects.'[3]

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1 Essays in sci and phil. P 110.

2 Contemp. Brit. phil., p. 225.

3 M. Saha-Treatise on Heat P. 610-11.

Special Study of different theories of realism and idealism :]

J. Laird—1887.

John Laird starts with the question of Locke and Hume about knowledge. A fact is real and has transcendental existence. It is independent of the act of perception. By an act of knowing we come immediately in touch with the external world. What we perceive is not mere sense-data but indications having significance that is beyond. Important or significant data are called signs and those purely sensory are called facts. But the distinction is not actual. The perceptual facts are sign-facts. Every sense-datum has a meaning which is transcendental. This meaning is objectified being part of a reality independent of mind. Laird gives a prominence to the common-sense view of philosophical questions, critical reflection only establishes it scientifically. Realism for Laird is an attitude and a tendency.[1]

A Meinong—1853-1921.

There has cropped up a three fold classification of objects in German realism of Meinong. These are (1) subsistent or ideal objects like universals (2) existent objects like table and chairs (3) non-subsistent and non-existent or impossible objects, like round square. In the pure phenomenology we find a tendency to diminish the opposition between idealism and realism. Objects, for Husserl, are the immediate presentations in consciousness without further reference for them in space-time order. The method of modern realism is analysis, its aim being to discover the ultimate structure of facts.

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[1] Metz. A Hundred years of Br. Phil 677f.

G. A. Moore—1879

George Moore disputes idealism by asserting the commonplace view of our knowledge that we know something when we know and that which we know is different from our knowledge. We are immediately aware of the existence of material things.[1]

Moore refutes Berkley's theory of *Esse Est Percipi* (existence means experience); for him existence does not depend on perception and being perceived does not imply existence. We apprehend directly not the things but shadowy partial aspects or sensa, and we add something more. Consciousness is not the container of perception, sensation etc. It has a functional part only.[2]

[1] Metz. A Hundred years of British Phil. P. 546.

[2] Metz, A Hundred years of British Philosophy 599f.

Russel—1873

Russell distinguishes between private and public objects. Sense-data are private while physical objects are public. Imperceptible objects like electrons are also public objects. Russell in his "Outline of Philosophy" says that mind and matter are structures of a more primitive entity which is neither matter nor mind. Physical science analyses matter into molecules which again are atoms. Then from atoms come electrons and protons. These two again have come to be dissolved into systems of radiations (Hysenburg) or system of waves (Schrodinger). In another way physical matter has come to four-dimensional continuum of events which are not persistent particles. There is no force, particularly gravitational force, according to relativity theory. The atoms behave in discontinuous jump and their course is not deterministic in nature. Events which are perceptual contents and inferences from them happen in the external world and in our brain and they are bridged by a long causal chain in a compresence.[1]

According to Russell the various appearances or views of things are real while the thing has no real existence. This thing-substrate is a logical construct which in his earlier philosophy was a reality of instinctive belief. He, however, assigns sense-data and sensibilia to the final constitutive element of the world of natural science and thus mentalizes matter and materializes mind.

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[1] P. 289, 303-305.

The basic concepts of natural science are proton, electron etc. But Russell calls them as complicated logical structures inferred from sense-data. They are not the basal constitutives of the material world. Events, which are perceptual contents and inferences from them, constitute the matter of the physical world. A physical body is a group of events arranged round the centre. It is not permanent, The causal chain that inheres in them is expressed by a differential equation. He bridges the gulf between mind and matter by his doctrine ot neutral monism. The stuff of the world is neither purely mind nor purely matter. It stands in a neutral relation to all the antithesis of mind and matter. From this neutral stuff both mind and matter then descended as from a common ancestor, or it may be thought as something lying between them. It is monism for it takes the world as composed of one kind of stuff called events. It is pluralism for it admits the existence of multiplicity of events, each logically self-subsistent.[1]

Russell gives realism a logical foundation. By logic is meant mathematical logic, an analysis in the mathematical type and method. His innate apriori way of thinking pushes him on to an equation of logical and mathematical constants and variables, to the logicization of mathematics as much as to the mathematicization of logic, to an extra-ordinary epistemology, to a strange idealism, to an ethics and aesthetics pictured uniquely when he says, "Mathematics, rightly viewed, possesses not only truth, but supreme beauty, a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trapping of painting or music, yet sublimely pure and capable of a stern perfection such as the only greatest art can show. The true spirit of delight, the exaltation, the sense of being more than man, which is the touch-stone of the highest excellence, is to be found in mathematics as surely as in poetry."[2]

American Realism.

American realism bifurcates into Neo-Realism and Critical Realism. The one accepts the two-

[1] Problems of Philosophy page. 293-307.

[2] Russell Mysticism and Logic. Page-60.

factor theory of the German Realism of Brentano and holds that the object perceived being the same as the object as it is, in a perception we have only (a) the perceiving mind and (b) the perceived object. This is epistemological monism and realism. The other, Critical Realism, accepts the three-factor theory of the German Idealism of Meinong and lays down that the object perceived not being identical with the object as it is, we, in a perception, have the (a) perceiving mind, (b) the percept i.e. the character, content, datum, sensum or essence revealed in sense-experience and (c) the object. This is epistemological dualism.

The Neo-Realists, again, formulate three types of Realism,—(1) Existential Realism, (2) Subsistential Realism and (3) Presentative Realism. According to the first atleast some of the particulars of which we are conscious *exist* when we are not perceiving them. According to the second some atleast of the essences or universals of which we are conscious *subsist* when we are not conscious of them and according to the third some at least of the particulars as well as the universals that are real are apprehended directly and not mediately through images. Thus neo-realism seeks to accord "full ontological status to things of thought as well as to things of sense, to logical entities as well as to physical entities. or to subsistents as well as to existents." and to emancipate metaphysics from epistemology by saying that the nature of things is not to be sought primarily in the nature of knowledge but must be studied in the objective way, in their objective setting.

But Neo-Realism is a house divided against itself both in respect of its metaphysics and epistemology —its characterisation of knowledge and explanation of error born of the conjunction of the mental act and the physical object in the perceiving consciousness. Holt and Pitkin and Montague and Perry acutely differ here. The nature of consciousness is said to be a behaviour, a response, (Holt) or a projection (Pitkin) and the knower of the subject is said to be an organism selectively responding to physical stimulii of objects—so that consciousness, thought, subject, object, error, illusion and delusion are all natural phenomena in the space-time order of existence (Pan-physicalism). They speak of the world as four-dimensional for which they enunciate a scheme of eleven categories in which there is no place for consciousness or causality.[1]

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[1] Radhakrisnan. Hist of phil, E. W. vol II p. 386.

Montague differs from this type of behaviourism and objective relativism of Holt and says that consciousness or awareness is no behaviour but the relation of self-transcending implication which the brain states sustain to the extra-organic causes in the epistemological triangle of objects external, objects perceptual and states cerebral and that all objects of perceptual illusion or conceptual delusion, all erroneous experiences are unreal, unobjective as having no physical locus, temporal and spatial. Even Perry stops short of pan-objectivism and maintains that human consciousness is the mother of many complexes as imagination, desire and the like. Montague goes so far as to say "It may be possible to find room in a single spatial system for the totality of such perspective aberrations as railway tracts of various degrees of convergence and of pennies of various degrees of ellipticity; but if we add to these comparatively simple erroneous perceptions not only the stereoscopic spheres but the objects of every dream and every delirium, then not even the genius of a Russel or a Whitehead could device a space or a space-time that would be adequate to serve as a bed no matter how procrustean, in which such so-called and mis-called "physical existents" could all be placed and duly ordered" and "it is less difficult, even if not less gratuitous, to think of the totality of actual and possible appearances as being somehow synthesized and harmonized in one absolute consciousness than in any milieu of a spatial or physical kind."[1]

Santayana, for Critical Realism, tells us that knowledge is 'vital sensibility and intelligence.' It is also transitive and relevent. 'The minimum of Realism is the presupposition that there is such a thing as knowledge.........not the mere experience of perceiving and thinking. The maximum of Realism would be the assurance that......there is no such thing as error.

Santayana starts with Cartesian doubt but he carries it much further. He doubts not only the past and the future but also the unobserved, the unperceived present. He doubts till he is left to his immediate intuition of the present moment, intuition of an essence, a pure essence, which is a bare form, just an appearance in the immediate apprehension, which shines by its own light so long as it appears—which is self-identical, eternal and universal, not involving any belief nor comporting any existence.

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[1] Twentieth century Philosophy, Runes. P. 438.

But there is the animal instinct, the animal faith indispensable for life which posits existence, as intuition reveals essence. And we instinctively, naturally or spontaneously, as of necessity in the situation, proceed to relate, pragmatically, for purposes of life, essence to existence which, for Santayana is something that implies the relation of 'the given' to things not given in direct consciousness.

According to Critical Realism this consciousness or awareness—this intution or apprehension, this perception or knowledge, is not a bare physical response or effulgence. It is not, either, a behaviour of organic matter, selection or projection. To know a thing, as Sellars says, is not to be the thing, either idealistically (Hegel) or materialistically (Holt), nor it is to have a copy-like representation. Knowledge, according to him, is mind's possession of the form of the thing or of its essence, according to Santayana, and the ascription thereof to the objects of physical world. The one reminds us of Aristotle——the other, of Plato. 'Essence,' says Santayana, 'may now have the ideal status of an object of intuition and again the material status of the form of a thing. There is an identity of essence between two peas in so far as there are some elements common to both, such as colour, shape, similarity etc but the existence of each pea is distinct. The essence is what is common, again, to a physically existent pea, its percept, its memory image etc. It is precisely this identity ......that......makes essence the key to the problem of knowledge.'

The neo-realist, as Rogers says, fails to explain error on account of his monistic identification of content with object and his attempt to deny the subjective. The denial of the subjective is unacceptable since knowledge cannot be explained merely in terms of physical causation or physiological reproduction. Errors are also not referable to or explicable as co-existence of contradictions and contrarieties, according to responses of organisms, in a monistic pan-physical world. Nor is it explicable by reference to a universe of neutral entities, of the nature of logical terms and propositions, any more than that the fact that I can describe things only with words implies that things are made of words. All these explanations of errors and the like take away their practical significance from the field of actual life.

Himself a neo-realist, Montague denies any locus to these phenomena, they being non-existent entitites of an erroneous experience or of a perceptual illusion or conceptual delusion and thus differs from Holt and Pitkin. But this expedience also does not improve the neo-realist's position in respect of errors. The neo-realist's physics and metaphysics in the matter of knowledge are worthless and useless for practical purposes. Montague's theory of knowledge as self-trsnscending implication of events, also, does not explain the inherence and the inherent—the immanence and emergence of knowledge. A brain-state charged with Montague's implication or Holt's response or Pitkin's projection is still a physical and physiological existent and not a psychical advent or the manifestation of mind. Here neo-realism stops short or fails and Critical Realism steps in with its explanation of error which is that truth and error are relational agreement or disagreement, respectively, between sensum and factum, mental content and material existent, between 'inhalt' and 'exhalt' i.e. the physical object.

But Critical Realism comes with another acceptance. It admits the existence of mental states which, as Drake shows, must be admitted because a brain-state can not reveal the data as it is itself unconscious.[1] Lovejoy speaks of existential entities that transcend the knowing experience, entities both physical and psychical predicated in epistemological dualism of the Critical Realists, entities, however, that are knowledgeable and are known. The neo-realist Perry also stops short of the Pan-physicalism of Holt and admits a large number of complexes which owe their existence to human consciousness, such as, imagination, selection, desire and the like. To know them, the objects physical and psychical, the mind's power of transcendence, the power to transcend and relate the sensa and the sensibilia must be admitted, says Pratt. So we come to a subjective-objective transcendence and to the transcending spirit, in the poesy of Santayana.

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[1] Dutta, Chief Currents, Page 350.

Montague, the neo-realist, accepts as satisfactory the critical realist's explanation of error but not of truth.[1] He asks, if knowledge is to be confined to content or 'inhalt', to datum or sensum how can we proceed to construct or contact the objective world outside the mental act?, And, again, if the qualitative likeness between the percept and the object is only insisted upon how far do we advance beyond Plato, Aristotle, Locke and others?,

It seems to us the burden of Montague's thesis is that the use of the word mind or matter is only referable to mood as when we are nominalistically inclined we insist on Dum or Dee to signify the individual quantities or existents in Tweedledum and and Tweedledee and when we are bent on the qualitative likeness or identity or unity between the two we lay our emphasis on their essential common, Tweedle. The critical realist's expedient of essence, the Tweedleness prefixed to Dum or Dee, innovated to bridge the gulf between mind and matter—the prime problem, the perennial puzzle of philosophy—is poetical and beautiful, has all the charm of novelty but is hardly a real advance.

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[1] Runes. Twentieth Century Philosophy, Page 442.

'Error', according to the Critical Realist 'is false predication.[1] Each error is an instance of it. 'The penny, to quote Broad's example, looks elliptical to me. There is something given in my sense-experince which is elliptical, but which does not 'belong to' the round physical object, the penny—the error is due to false predication.

But the roundness of the physical object and the elliptical character of the sense-object are both real —in that realm of reality which is, as Santayana says, or where is 'the maximum of realism', 'where there is no such thing as error'——in 'a knowledge' (in the Indian sense of the Nirvikalpa)……in which there is 'knowing' but no 'relating'. (Ibid)

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[1] Radhakrisnan. History of Philosophy—Eastern, and Western, page 388.

Here we have gone beyond the horizon of the physical world, the world of the round penny with its essences of roundness and pennyhood, the world of physics, mathematicss and logic; we cross also the mental world of elliptical penny with its essences of ellipticity and pennyhood, the realm of philosophy, the mother of all branches of knowledge, and we find, we are in the realm of spirit, where comes Santayana—the Critical Realist now disillusioned, ripened into, chastened into the Transcendental Absolutist.[1] He goes on to say, with his singular poetic elegance and exellence, 'The spirituality of spirit and the ideality of data follow directly from materialism and I think it was by convinced materialists, by men thoroughly disillusioned about the course of nature and the decree of fate as the Indians were disillusioned, that the true quality of spirit was first discerned- For a materialist the mind will be simply sensibility in bodies, things that stimulate that sensibility will be the inevitable objects of pursuit, attention and passion, but how should the feelings thereby aroused in the organism present the intrinsic character of the surrounding things?, Evidently.........in aesthetic, moral or verbal terms......Mind, for a materialist, will therefore seem necessarily poetical and data, fictions of sense. If you are a materialist in respect to matter you will be an idealist in respect to mind.

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[1] Runes Twentieth Century Philosophy—page 319.

Commonly materialists, no doubt ignore mind altogether; they are seldom competent philosophers and where they are they may express the quite special quality of mind......by calling it illusion as the Indians did, or appearance with Parmenides or or convention with Democritus. Attaching myself to this ancient tradition.... I call it intuition and note that it possesses qualities...necessarily original in respect to the physical world. Matter is in flux, spirit while existentially carried along in that movement' as mind intuits and 'arrests some datum, lending it an ideal unity, fixity and moral colour such as neither the organ of sensation nor the stimulus can possess in themselves' and as spirit-mind-body is in the 'simultaneous dimension' of essence and existence, in the texture of its impressions and 'is a poet, a singer, a sufferer,.......living in a pedestrian world that cannot suffer or sing' but living also, we add, in perennial purity and beauty and peace and bliss 'in the realm of spirit.'

British Idealism

The three peaks of contemporary British Philosophy T. H. Green, F. W. Bradley and J. M. E. McTaggart are vertices of English Kantianism and Hegalianism in singularly original hues. Stirling's 'The Secret of Hegel' stirred the milk of the philosophical mind of England. Green, Bradley and McTaggart secured its curd and cream and catered to the philosophical world at large where they are healthy and wholesome as ever.

Before taking up their philosophies a brief *resume* of the earlier modern philosophy of England will be helpful. Bacon's warning against individual, social and racial prejudices, against his famous 'idols' or false notions is a fore-cry for Locke's 'tabula rasa', a clean slate of a mind for nature to write her story on and for us, to impart to us knowledge, certain and objectively logical.

With this insistence for empirical certainty however Locke proceeds to his intuitive knowledge of self and God as if the inner order of nature sensates to him these two ideas as certainly as the outer order communicates the knowledge of the physical world. Bacon's belief in the uniformity of nature and its offshoot the principle of cansality give us a foretaste of the universal spirit of the two philosopher-poets Wordsworth and Coleridge imbued in and enlivening the omnipresence of Nature before and around us—of the universal perceptor of Berkeley in whose omniscient perception the 'esse' of existence has its being and reality.

We shall not omit Hume also who seeks to break the Baconian belief in the uniformity of Nature and causality and dismiss self as 'but a bundle or collection of different perceptions which succeed one another with inconceivable rapidity and are in a perpetual flux or movement.' His solipsism rejects matter as any entity existing independently of the chain of our impressions and ideas and any permanent self which is conscious of and to which these impressions and ideas belong. Juxtapose to it his theory of impressions and ideas set out thus:—'All the perceptions of the human mind resolve themselves into two distinct kinds which I shall call impressions or ideas. The difference betwixt these consists in the degrees of force and liveliness with which they strike upon the mind and make their way into our thought or consciousness. Those perceptions which enter with most force and violence, we may name impressions and under this name we comprehend all our sensations, passions and emotions as they make their first appearance in the soul. By ideas I mean the faint images of these in thinking and reasoning.'

Immanuel Kant rose from his dogmatic slumber on a quickening from Hume, the exponent of the aforesaid sensation, perception, impression, ideation, passion, emotion, consciousness, thought, reason, *mind* and *soul*. And in the procession of British idealists, in English language and literature, some other fore-runners besides Wordsworth and Coleridge, that are noteworthy, are De Quincey, Carlyle, Hamilton, Grote, Ferrier and Jowet, the last-named being a great teacher and tutor, among others, of E. Caird and T. H. Green.

E. Caird (*1835-1908*)

Caird, the absolute idealist, was an enthusiastic mediator of the thoughts of Kant and Hegel. He wanted to do equal justice to one and the many, the whole and the parts, to both identity and difference. The organic unity, the spiritual principle in the universe, is the Absolute. The universe, for him, is continually creating itself. It is differentiating and integrating itself—the one increasing and the other deepening. Religion is the developed consciousness of infinite unity. God is the self-conscious and self-governing being, the principle of unity.

Man over and above the capacity to look about and inside himself can look up to the Divine.[1]

T. H. Green (1836-1882):

The Absolute idealist Green is Kantian, viewed initially and externally, but he is Hegelian in the back-ground and in the end. Human knowledge according to him, has two principles (1) natural and (2) spiritual. Perception means successive sensations (feeling) and synthesising consciousness. The natural principle gives rise to successive feelings or sense-impressions and the spiritual one is the eternal and changeless consciousness.

Green's metaphysic of knowledge arose in a reactionary process against atomism of empiricism and against the realism and materialistic atomism of science.

His theory is that reality of things consists in their relation that binds things together. He is of opinion that the doctrine of relations like substance, causality, identity and the like is the cause of all knowledge. It is the reality. Things are not independent of one another but stand in relation to one another. But this refers to a mind which brings about this relationship. Green tries to do away with Kant's duality of thing-in-itself and appearance. For he thought that if thing-in-itself be the cause of all appearance, it needs must itself be appearance. How can we know the thing-in-itself without its being in relation to a knowing mind?, Again sensation needs some amount of determination which again pre-supposes a determining subject. Every object is a combination of parts which are inter-related. Nature, which is the inter-related system of things, requires determination. This determining and correlating factor is the eternal consciousness. The system of the universe with all its changing appearances, fleeting perceptions and particular things owe their unity to this unity. It brings unity and order to the whole system, This divine unity upholds and sustains the parts and puts them in their logical position. It is above, beyond and before everything. It is neither in space nor in time, immaterial and immovable and eternal with itself. This first principle is Kant's reason, Hegel's spirit and Berkeley's God.[1] Green resorts to mysticism as to why the Absolute should manifest itself through the finite. But the fact remains that the universal mind creates and perceives nature. All the functions of a human being, all the processes of brain, nerve and tissue, even the successive mental phenomena are determind by universal consciousness.[1]

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[1] Metz. British Philosophy, P. 287f,
Dutt. Chief Currents, PP. 19, 60.

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[1] Metz. British Philosophy, PP. 272-277.

James Ward (1843-1925)

James Ward was a theistic philosopher. The eminent psychologist speaks of the field of consciousness as a certain whole presented at a given moment and undergoing partial change only in the following moments. Attention is the central factor that rules consciousness and' is associated with every mental phenomenon of life. He considers his metaphysics in the light of this consciousness and thinks that experience is to be understood in the light of this selective process of self-preserving instinct. Thus he prepares the way for the pragmatists. His outlook is introspective starting from inner perception. The sciences according to him, investigate mechanistically the world phenomena but this is an abstraction. This mechanical view of life which science takes is not able to give us an idea of values and ends. According to him there are two realms in

[1] Thilly. Hist of Phil. P. 559.

the world; one is nature and the other is the realm of value, of ends, of individuals with moral actions and freedom of purpose. But there is an unity above these two. Nature is derived from spirit. It is animated. This is called spiritualistic monism as against mechanical monism. There is a telos in nature. But reality is pluralistic experience as is presented to us. There is a reciprocity in these experiencing centres called monads or entelechies. The lowest of these elementary monads are sometimes called psychoids. They arise out of the undifferentiated continuum common to all monads which form the environment. All monads are individualistic, striving mainly for self-preservation. This pluralism is grounded in and ends in the divine. God is the source and the end of all. He is spirit with intelligence and will. He is personal, the creator, sustainer and the governor of the cosmos; as creator He transcends the world. But He is not transcendental absolutely. He is present in the creation as the creative principle, moving the world from within. This gives freedom to man as co-worker of God. As God is immanent in this world, goodness will surely conquer evil. The universe according to him is dynamic. There is a creativity in it, a continued process of emergence.

There is also a harmony of the beginning and the end in the world process.[1]

F. H. Bradley (*1846-1924*)

Bradley, the absolute idealist, speaks of metaphysics having two tasks (1) to know reality as distinguished from appearance (2) to know the world as a whole.

Appearance is relative, is changeful and fragmentary, while reality is non-contradictory, all-comprehensive unity, the harmony and the absolute.

Now, relation and quality are complementary in nature but they have an inherent contradiction of the realm of appearance. In appearance we find primary and secondary qualities, things and attributes, quality and relation, space and time, motion and change, succession and causation, action and passion, substance and identity of things and of self, all natural sciences and error, evil and good, even religion and God. Self is not real, for it is used ambiguously and it is only a sum of experiences having no unity.

But appearance and reality are complementary. Appearance, according to him, needs reality to be complete and reality needs appearance to be actual. Real, according to him, is felt when it is real, for in feeling the many are made one, parts are taken as whole.

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[1] Metz. British Philosophy P. 399ff.

The world-view, according to him, has three levels. (1) At bottom is the realm of immediate feeling where there is no experience of relation or differentiation and the whole is felt atonce. (2) The dialectic level in which the original unity of feeling is broken-up by relations and things and appearances. (3) The realm of reality or absolute in which the whole is realised as a synthetical fact.

Error is partial truth from our partial view. In the experience of the whole, this is corrected and disappears. Pain and evil likewise are not possible in the Absolute. They are submerged in the Greater Joy of the Absolute.

God is not the whole but only an aspect of the Absolute. In the realm of appearance there is a degree. Each is real in proportion to its beings near the Absolute. Body and mind are both real, but mind is more real inasmuch as it is nearer to the Absolute. All things are relative when compared with the Absolute but there are degrees of relativity in them.[1]

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1 Metz. British Philosophy P. 322ff.

A. J. Balfour: (1848-1930)

Balfour showed that the axioms of science and philosophy are objects of faith rather than objects of reason. Examples of these are the principles of uniformity and the belief in a transcendental world of things. In his first work of defence of philosophical doubt we find a deep feeling of belief generated by a profound faith in religion and its truths. Naturalism presupposes and assumes certain facts of the nature of faith as it is done by religion also. But theism satisfies our higher aspiration and needs by giving us higher values, ethical and aesthetic. Again science has to postulate ultimate grounds or cause of the world and thus has to depend on religion. Thus according to him, science and other enquiries of knowledge have to depend on religion. In his later writings he tries to show that all human achievements and culture require God as its centre and circumference.[1]

Sorley: (1855-1935)

Sorley's metaphysics is a metaphysics of value, and his idealism is ethical idealism. He divides the whole being into two groups, the realm of the existent and the realm of value. Persons belong to both the realms. They are objective inasmuch as they have physical existence and they are subjective inasmuch as they possess the values of life and character.

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[1] Metz. British Philosophy P. 780.

For him, moral values are the best values of the world.

The duality of value and of existence is expunged by taking Almighty God as the supreme person and the source of everything, as the creator of the existent world and the fountain-head of all values. He believes in a realism of individuality under a divine person.[1]

Rashdall (*1858-1924*):

Rashdall's philosophy is personal idealism. He is a great supporter of personality. The existence of mind is primary and that mind is of willing and knowing person. The finite mind and the infinite mind are the reals of the world. The infinite mind or God is the ground of the world outside. This personal element cannot be destroyed or absorbed.

Pringle Pattison (*1856-1931*)

Pringle Pattison is a great supporter of organic nature. His philosophy is natural realism. For him Nature is an instrument to the development of man and of consciousness and man is organic to God. Each leads to the other. There is an organic connection between the parts, and between the parts and the whole, between individual and society, nature and man, world and God, and between finite and divine being.

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[1] Metz. British Philosophy P 393.

The difference between subject and object i. e. between knowing mind and nature is not tenable. Both belong to the same system. Epistemologically reality exists independently of the mind and is presupposed by it. But metaphysically it is related to mind. Pringle Pattison speaks of them as co-related factors. This is natural realism epistemologically. But his metaphysics is idealism. It takes into account God, man and nature. Nature is not an end in itself but is something through which spiritual values of the whole express themselves. It is got by living faith alone.

The self is finite and is the architect of its destiny. Its individuality is based on freedom. It is indestructible. But this self is not an end in itself. It leads man to God. But God also cannot exist without self. There is a reciprocal need for both. He is not transcendental but reveals and enriches the finite self with his infinite nature. God has no meaning if he has no relation with man nor man has any meaning when he is not in relation with God. The absorption of the self would lessen this value of the universe. The whole is enriched by individual existence here and now; the highest value of the universe depends on the communion of the finite selves with one another and with God. Both are enriched by this community.[1]

William Ralph Inge. (*1860*):

William Ralph Inge is one of the theistic philosophers of this age. His Philosophy is based on the doctrine of Plotinus. He calls himself a disciple of Plotinus whose philosophy he wanted to revive. Plotinus is a link, according to him, between the old civilization and the new. By Dean Inge, reason is applied to the mystic sphere that is beyond rationalism. Mysticism presupposes our proneness to a belief in a higher being who is above us. Mysticism is an attempt to actualise or realise this being—this God in our soul, and in the world outside, in thought and in feeling.

In the realm of reality thought and being, fact and value go together as correlate existence. Reality is essentially religious and it expresses itself to us in values. These realms of values are three, the true, the good and the beautiful. These are not principles made by man but have objective existence. They are absolute and form the very basis of the universe. The world of ours is but a shadow of this supra-temporal region. Through these values the divine manifests Himself to us and thus divinity unifies the values that are His attributes and as such is called the value of values. These values have a transcendent existence and the world owes its existence to these as a feeble expression. For Inge, personality has a higher significance than individuality. Our true personality rests in our spiritual and rational self and to attain that we have to forsake our petty self-centred individuality. We loose our personality in God-vision. This personality by this process is transformed so that God thinks and wills and acts through us. Thus humanity has no independent existence, but has independent value. Evil and inequity are accepted by Inge but they can be overcome by the grace of God and the sacrifice of Christ. Evil exists only as appearance to further our moral ends. He denies the view of pragmatism, the 'provincialism of thought', which makes man the measure of all things. He also denies evolution and fanatic orgy of progress and over-mechanisation of the present world.[1]

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[1] Metz. British Philosophy P. 387.

L. T. Hobhouse (1864-1929)

Hobhouse is an evolutionist and he depends on exact investigation of empirical facts. He does not like abstract speculation. He establishes a close relation between philosophy and science. Philosophy wants firstly to synthesise the sciences and to build upon their foundations. He also studies the realm of values in which religion and aesthetic are included. His theory of knowledge may be termed critical realism. For him, "to be apprehended" is identical with "to be a content of consciousness". All cognition begins with apprehension in the cognitive act directed upon this construct of consciousness, which is immediately present. He rejects Hume's atomism by recognising the given as a complex whole. Over and above the apprehension, the content of cognition, the mind can retain, analyse, construct, infer and generalise. In judgment the given is subsumed under a universal. Apprehension and judgment produce no new content. In inference this new element of knowledge is possible. The validity of cognition increases as it progresses within the entire knowledge system. So in truth there are the notions of consilience and evolution.

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[1] Metz. British Philosophy P. 784ff.

His metaphysics is both mechanical and teleological, standing in reciprocity. Reality is an organic whole but the parts do not lose their independence. The central mind or spirit or personality for him is an all-pervading element that works to harmonize all conflicts. But its teleology is conditional in as much as it can never attain the end being ever in contrast to the mechanical matter. Reality is a whole of parts each conditioning and conditioned by the residue. Reality is a whole, a system and mind in evolution is within it.[1]

C. C. L. Webb: (*1865*)

The religious Absolute idealism of Webb is not so much an object of speculation. It is an intimate object of religious attitude. God and Absolute are equated in a religious view of life. God according to him, is personal which religion alone can reveal and in religious experience alone man can enter into a direct relation with God. He is within us as we are within Him. But He is both immanent and transcendent in His creation. Our knowledge of other selves and of the world outside is not got by an analogy of our knowledge of our own selves. The knowledge of other selves as also of God is got by a direct apprehension.[1]

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[1] Metz. British Philosophy P. 150ff.
Hobhouse. Contemporary British phil. p. 151 ff.

J. E. McTaggart (*1866-1925*)

McTaggart's philosophy is ontological idealism or personal idealism. His universe is composed of selves which are spirits. Therefore the whole universe is spirit. It is not a person nor a creator or controller as God, for the Absolute is like a college comprised of students, which is not a person. The Absolute has perceptions of its parts, and is determind by them. Thus the whole depends on the parts. Thus the compound universe substance is a combination in our thinking process of several substances that are particular and unique in character. There are relations among these substances and these give derivative qualities. The substances having qualities exist, for existence is a quality of things. Thus ontological spiritual substance is proved by him. Now the substances are spiritual, for substances can be divided infinitely and are not capable of being described sufficiently and so materiality of substances is denied. They are also not perceived.[1]

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[1] Metz. British Philosophy, P. 409ff.

In McTaggart's pluralistic philosophy mysticism and logic are brought together in close connection. Mysticism adds warmth to logic and logic gives discipline to mysticism.

Existence is not equated with reality, for there are realities that do not exist at all, but all existents are real. He wants to build up an *apriori* account of the universe. It is abstract and remote from experience. Pure being of pure existence is deduced *apriori* but it can be known by experiences. Its certainty is *apriori* but its evidence depends on experience.

Existence means and refers to substance, and substance is multiple according to him, and the proof is that a single sense-perception is differentiated. A substance has quality and relations that are essential to its existence. Relations are concepts that link the various substances while qualities inhere in the substances themselves. Each substance has a unique position and they can be formed into groups. For everything is related to everything else and everything has some influence upon everything.

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[1] Dutt. Chief Currents. P. 43ff. Cont. Br. Phil. P251ff.

The universe is an organic substance which contains as its parts all other substances. This unity of the universe is the cause of the relatedness and reciprocity or co-operation of every object in it.

The world in its infinity, multiplicity and complexity requires a determining correspondence as the causal relation that can unify and logically organise these heterogenous substances and relations. All wholes and parts are in a relation of determining correspondence. In this way an object is properly known in its relation to one another and to the whole. This, according to him, is the fundamental system of the universe. Viewed from this unity of the universe the world-system is a monism and viewed from its multiplicity it is pluralistic.

McTaggart considers two temporal groups. One group changes from past to present and then to future, while the other series does not change and has relation of "earlier than" and "later to." In the latter the temporal order is given once for all. The former, which is called the "A" series, is mere appearance for it changes while the latter is the "B" series and is constant, resting on persistent relations. There is another series according to him which is "C" series, it is the real relation of things. It embodies the truth falsely stated in the A and B temporal series. It gives a relation of logical inclusion with a determinate direction. At one extreme of this series is nothing and at the other, the whole. The final member of this series is not included in any thing but includes every thing of the universe.

McTaggart's reality is spirit. The absolute is a unity of selves. The relation of parts to the whole is like a college and its members—the members being real persons. These finite persons are really true. The self or person is independent, is pre-existing as also has past existence. It is changeless, uncreated and knows no destruction. There is no higher personality than self. Absolute is impersonal and obviously this cannot be called God.[1]

B. M. Streeter: (*1874-1937*)

Streeter tries to correlate science and religion. For him science is a help against "mechanomorphism", the materially mechanistic view of life. The universe is an organism with parts of dynamic movement and life having a creative principle. This creativity is not destructive struggle as given by Darwin. This creative strife of life in its activity makes possible higher values and culminates in the evolution of the highest value which is co-operation and love, Love is true creative principle and it is the true meaning of the universe. Thus love is the essential attribute of God. And God also is eternally creative and operative in the universe. He is the perfect person, the individual, the highest level of our individual existence.[1]

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[1] Dutt. Chief Currents P. 43.

William Temple (1881)

Philosophy, according to William Temple, the Absolute idealist, wants to bring about a harmony of faith and knowledge. It gives a rational ground to theism, For him values are primary which are real and are embodied in different things. Values are good and are akin to the divine will of God. Theism, according to him, gives will as the ultimate ground of the universe; the end of this will is good to finite creatures. There are four stages of reality which is the expression of the Divine will. These are matter, life, intellect and spirit. Each of these has a fulfilment in the other. Reality or substance, value and good are equated by him. This is the correlate of a divine will. Science, art and morality are the three forms through which spirit is trying to have a view of harmony of the chaotic world. But only through religion can there be a satisfactory unitary view of the world.[1]

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[1] Metz. Hundred Years of B. Phil. P. 793ff.

English Pragmatism and Realism.

Schiller : (*1864-1937*)

Schiller's pragmatism is centred round logic. He criticises traditional logic on the ground that it has nothing to do with human experience and speaks of abstract truth which is not possible. Pragmatic logic is psychological and practical.

Truth should be tried and verified before it is accepted as true. So truth is relative to value. But there is no absolute truth or falsehood. It is true in proportion as it satisfies an aim of investigation and it is false in proportion as it does not do so. There is no absolute standard of truth or error. One may change into another. Again it has a definite purpose and direction. So every true assertion is useful but everything useful is not true, as a lie may be useful but is not true. So truth is useful but not always the converse.

But truth requires a social and wide sanction. It becomes objective when it receives the social sanction. The dynamic nature of pragmatic truth gives it changing character. What is truth in an age becomes only a historical fact in the next age. Scientific theories change in this way—one truth becoming the jumping ground for another. Error and truth may change their character.

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[1] Metz. Hundred Years of Br. P. 425ff.

Truths of pragmatism are both biological and psychological. There is a selective and survival value tendency. The truths that serve best are accepted. Biological and psychological truths supplement one another or one may pre-dominate. There may be theoretical utility also. So there are logical values also.

Pragmatic theory accepts no block universe. Its universe changes as we act upon it. Even in our act of knowing we change the universe. Pragmatic reality is real in the sense that we can really act on it.

Pragmatism is ethical and as such accepts human freedom and indeterminism. There must be scope for free choice in our action and this free choice of action shapes the world. Thus freedom and indeterminism creep in, though there is a large measure of determinism in our actions, a determining factor being our nature and habits. Pragmatism has nothing to do with metaphysics. It settles its question in its own way. It accepts personalism and pluralism as its view of the world.[1]

G. E. Moore. (*1873.*)

The Cambridge philosopher of neo-realism is a vigorous and original writer. He uses the analytic method in his philosophy. But inspite of his analytic mind, on the whole he is inconclusive. The cardinal points of Moore's theory are as follows:—

(1) The objects of knowldge are different from and independent of their knowledge. (2) The object known is identical with the object existing and is known by the mind without any mental intermediary. He tries to refute idealism by showing that consciousness and the object of consciosness are not identical or inseparable. This comes to mean that the object of knowledge is independent of consciousness in respect of it. In this view (a) the act and fact of a knowledge, (b) the 'knower', that is, the subject of the knowledge and (c) the 'known', that is, the object of the knowledge are three several, distinct and discrete entities of a relation; and he argues that not to allow these three independent existence is to deprive idealism itself of its own

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[1] Metz. Hundred years etc. P. 453ff.

grounds, as then, we are precluded from asserting existence of even the knowledge of the knowing self. And to allow the same constitutes the refutation of idealism.

His another important study is of external and internal relations. Reality, for him, is founded on the theory of relations that are external only. He refutes idealism by refuting the idealist's proposition 'all relations modify the terms'. This he does by proving the proposition 'some relations do not modify the terms'.

External relation for him is a necessary relation. The necessity is not logical, however, but factual only which means that something is so and so only in fact and not in logic, that it is logically possible that a given term might have existed without a given relation and that a term would not be different without the given relation.[1]

American Idealism.

J. Royce. (1855 to 1916.)

Royce is a leader of American idealism. His philosophy is usually named as absolute Idealism but he himself calls it synthetic idealism.

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[1] Datta. Chief Currents etc. P. 313. Radhakrisnan Hist of Phil. E and W. Vol. II. P. 383.

He thinks that our common-sense-world has nothing that cannot be interpreted in terms of mind. The world of matter is a system of ideas forced on us by experience. But there is also a something beyond, corresponding to this system of experiences. They exist for a universal mind. As reality is known by mind it is essentially mental and ideal. The real world is a mind or a group of minds. The whole world is one world and a world of one self and it is identical with one's self. 'That art Thou'. The one self includes all selves and all truth. This world is rational, orderly and comprehensible. The supreme self transcends the individual consciousnesses[1]. Royce uses the idea of time-span. There are types and degrees of consciousness. There is no unconscious but only uncommunicative nature. We can communicate only with those that share our time-span. But to God there is no time-span or non-communicative nature. Every experience for him has meaning. It is ideas that give meaning to facts. And idea has an inner meaning embodying an expression of conscious purpose and it has an external meaning referring to an external object.[1]

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[1] Thilly. Hist. of Phil. p. 566 f.

G. H. Howison. (1834 to 1916.)

Howison, the professor of California, was an advocate of personal idealism or spiritual pluralism. Mechanical evolution for him cannot explain man—the spirit, who cannot evolve from mechanical nature. The world for him is a plurality of selves—the Eternal Republic, of which God is the President. He supported the existence of real and independent minds in the all-inclusive universal Mind. He denied pantheism as atheistic. For him nature is mind-begotten, spirits—eternally co-existing with God and God, their necessary presupposition, supreme ideal, fulfilment and the living bond of union. God for him is the final cause and not the efficient cause, who is the ideal ground and the ideal good[2]

Italian Idealism

Croce (1866 to 1952.)

Croce was original in as much as his philosophy of spirit is anti-metaphysical. His absolute reality is mind or spirit. The external world is the mind's creation, not one of any transcendental or physical reality. The concrete reality of spirit is a ceaseless activity, which can be divided into theoretical and practical, knowing and willing. There is no transcendentalism in his philosophy. It investigates everything within mind. For him history is the manifastation of spiritual activity, as there is nothing except siprit. Philosophy, again, is a study of concrete spiritual activity and changes with change of history, Hence true history and true philosophy come to be identical. His theory of grades is the inter-relation among different spiritual activities which are aesthetic, logical, economic and ethical. These are subdivisions of the theoretical and practical and are called moments by him. Intuition is the knowledge acquired by creative or productive imagination. It is on this intuition that art is based. The second moment of spiritual activity is knowledge from logical concepts which are universal. The third mode is practical activity which is economic activity or utilitarian activity that gives us pleasure born of satisfied desires and wants. The next mode is ethical activity. As individual we seek pleasure but as man we seek the good of all. Unlike Hegel Croce's Absolute is immanent in the present experience and is accessible there only. Thus his philosophy is Subjectivism or absolute idealism. He also differs from Kant and Hegel in the matter of Art. Croce's Art is intutional, perceptual, primal, and foundational or rootal, while the art of Kant and Hegel—crestal, consummational and transcendental.[1]

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[1] Radhakrishnan. Hist of Phil, E and W. Vol. 2. p. 325.

[2] Ibid p. 332

Gentile: (*1875-1944.*)

Gentile was a philosopher of self-consciousness. He calls his philosophy as actual idealism. With him knowing is to not bring a relation between the mind and matter outside. The subject and object, the knower and known are one in the act of self-conscousness. The same mind appears as, objectifies or makes itself into subject and object and thus incorporates in itself and transcends them also. It is subject looking into himself and creating his own objects—the so many subjects and objects. For him there are two kinds of thought (i) the concrete act of thinking where there is no distinction between the act and the content and (2) abstract thought which is past thought or thought which is made object. Nature is fossilised object for him.

Reality is not made of or constituted by ideas of individual thinking but is the pure thinking or perfect self-consciousness of the Super-personal transcendental principle of the universe. He makes no distinction between the theoretical and practical activity of mind. The dynamic mind is a developing process. The relation of multiplicity with unity, in his philosophy, is concrete in which the stress is on the unity. The concept of consciousness according to him is infinite for whenever we go to think of other things or consciousnesses we include them within our consciousness. It is thus infinite, all-inclusive and only reality.

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[1] Datta. Chief Currents etc. P. 92ff.

He denies agnosticism, mysticism, vitalism and intellectualism. For him the transcendental lives in the empirical and is knowledge which is infinite 'self-expansion, self-realisation' where we never come to our thought's margin, are never able even to refer to an object which is external to it—when 'to know is to identify, to over come otherness'.[1]

We traversed in these pages some important epistemological thoughts of the world. These develop our thought and by developing our thoughts we develop also our feeling and willing and our being, for they are all inter-connected. Again rationality is the key to all human evolution. This rational development, both individually and unitedly is the way to the highest Good—the nisus to God.

[1] Datta. Chief Currents etc. P. 107ff. Radhakrisnan Hist of Phil. E and W. vol. II. P. 322. Encyd. Vol. 10.P122.

transcendental principle of the universe. He makes no distinction between the theoretical and practical activity of mind. The dynamic mind is a developing process. The relation of multiplicity with unity in his philosophy, is concrete in which the stress is on the unity. The concept of consciousness according to him is infinite for whenever we go to think of other things or consciousnesses we include them within our consciousness. It is that infinite, all-inclusive and only reality.

He denies agnosticism, mysticism, realism and intellectualism. For him the mind-thought-system lives in the empirical and its knowledge which is an immense 'self-expansion, self-realisation' where we never come to our thought's margin, are never able even to refer to an object which is external to it, which to know is to identify, to over come otherness.[1]

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[1] Datta. Chief Currents etc. P. 1098. Radhakrishnan Hist of Phil. East and W. vol. II. P. 322. Encyd. Vol. 10. P. 22.

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viscidity, merit demerit, sound and faculty.	viscidity, merit, sound and faculty.	42	6
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treatise	treaties	117	14
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Arthakriakāritva	*Arthakriākāritya*	127	10
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